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Official Publication of the State Medical Society of Wisconsin

Wisconsin's family physician shortage

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Contents

Opinions

3 *President's page:* The Year of the Doctor
by JD Kabler, MD, Madison

Editorials

4 The ethics of progress
by Wayne J. Boulanger, MD, Milwaukee

6 What's our excuse?
by Jeffery H. Lamont, MD, Wausau

8 *Letters:* Child abuse reporting law needs changes
by Robert D. Miller, MD, PhD, Madison

8 *Voice of the SMS:* Evaluating the Medical Mediation Panels

10 *Soundings:* Two poems
by Sheri Ann Hunt, Milwaukee

Scientific

11 Wisconsin's family physician shortage
by John W. Beasley, MD, Madison

15 Surgical procedures for choledochal cysts
by John T. Goswitz, MD, Manitowoc

17 Exploring environmental cycles in psychiatric patients
by Jonathon L. Temte, MD, Madison

Socioeconomic

23 *Loss prevention:* Risk management: an ounce of prevention
by Richard G. Roberts, MD, JD, Madison

25 Update on the Medical Mediation Panels
by Randy Sproule, Madison

28 Medicare: questions and answers

30 Physician help requested in anti-tobacco campaign

31 Electronic information: Part II
by William A. Yasnoff, MD, PhD

35 SMS seeks fairer Medicaid reimbursement rates

Organizational

37 New SMS field representative hired; districts redrawn

38 Obituaries

38 County society news

39 Specialty society news

Our cover: By Brent Nicastro, a freelance photographer from Madison.

Wisconsin Medical Journal

The *Wisconsin Medical Journal* (ISSN 0043-6542) is the official publication of the State Medical Society of Wisconsin and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor and editor are responsible for overseeing the production, business operation and contents of the journal. The editorial board, chaired by the medical editor, solicits and screens all scientific, special and soundings articles. The editorial director provides leadership for the editorial associates and comments on both editorials and letters to the editor. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the SMS take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

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President's page

The Year of the Doctor

THE CONVENTIONAL WISDOM in Congress is that the Medicare physician payment plan is both broke and broken. Dismayed and disaffected by the soaring costs—up 17% per year—of Medicare Part B (which includes, but is not limited to, physician's fees), Congress has determined to make major changes in the current physician payment method. Encouraged by the lesser payments to hospitals effected through Diagnostic Related Group (DRG) prospective pricing since 1983 (the Year of the Hospitals), Congress plans to replace the current unfair, unpredictable and uncontrollable physician payment system. Thus, 1989 will become the Year of the Doctor in Congress.

What solons initially intended and what emerges from the legislative crucible, as modified by the many contending interests and forces, often differ. Major players in the coming contest, apart from the legislators themselves, will be the Health Care Financing Administration (HCFA), the Physician Payment Review Commission (created by Congress in 1986 to advise it), the American Association of Retired Persons (AARP, with 28 million members), the American Medical Association (with about a quarter of a million members), the American Academy of Family Practice, the American College of Physicians, the American Society of Internal Medicine and the American College of Surgeons. Each of these groups has a different and conflicting agenda.

The initial struggle over the Harvard Resource-Based Relative Value Scale (RBRVS) is under way. This RBRVS, commissioned by the PPRC two years ago, purports to combine estimates of time, mental and physical effort, and knowledge (as reflected in length of training), required for thousands of medical and surgical procedures and visits into a single index number for each and rationalize the relationships ("relative value") of these indices within and between medical and surgical specialties. The premise of the as yet unfinished Harvard RBRVS study is that it is so-called budget neutral, (ie, it redivides a pie which is no larger). In this redistribution, there are projected to be both *gainers* and *losers*.

But wait: The RBRVS is not a complete payment system. RBRVS does not consider all the elements of practice costs, geographic differentials, the effects of volume (the number of patients seen), differences in patient mix, and—most of all—it does not specify the conversion factor, the multiplier that converts an RBRVS index number into a payment for services rendered. Moreover, the RBRVS basis for determining physician payment is not preferred by all. HCFA (and, it is said, President Bush) favor an HMO-style of capitation payment for all Medicare physician services. Others favor a DRG-for-doctors approach. The AMA is adamant about retaining balance billing which, in turn and with equal fervor, the AARP opposes. The American Academy of Family Practice is opposed to specialty and geographic payment differences. The American College of Surgeons regards the Harvard RBRVS as flawed and unfair. Family physicians and internists expect to be gainers; the endoscopists and surgeons fear they will be losers.

JD Kabler, MD

But wait again. Does anyone really expect Congress, in the midst of enormous deficits, to permit *any* group of physicians to savor a windfall? The PPRC is planning regional expenditure targets to deter growth in both the volume and unit cost of medical services. Is it possible that there will be no gainers, only losers, among physicians who care for Medicare patients? Will this lead to fewer

physicians participating in Medicare? Will Medicare patients thereby have fewer choices among physicians ("less access")? Will this, in turn, augment pressures for mandatory assignment? Will pressures for Medicare mandatory *participation* come next? Will there be enough non-Medicare patients to bear the unreimbursed costs of Medicare services?

Whatever the responses to these questions, change appears inevitable. We do live in interesting times.

Happy New Year, doctor!

Opinion policy

Opinions expressed in the Voice of the SMS section reflect the official policy of the State Medical Society of Wisconsin.

Editorials are signed by the authors. These opinions are the authors' and do not necessarily reflect the policies of the SMS. Authorship of editorials is reserved for members of the *WMJ* editorial board, editorial associates and SMS elected officers.

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Editorials

The ethics of progress

THESE EDITORIAL PAGES have provided a forum for rather deep philosophical expressions regarding euthanasia, fetal experimentation, in vitro fertilization, etc, in recent months—all topics with intense implications.

Some of you may remember a rather terse editorial I wrote a few years ago entitled *Ethics and the Dodo Bird:*

"To be succinct,
They're both extinct."

—the shortest piece I've ever written. Editorials (mine, anyway) tend to exaggerate to emphasize a point, so as you read on, please keep in mind that I didn't really mean that ethics were totally dead—just somewhat moribund.

The topics listed above are truly grist for today's philosophical mill and worthy of serious deliberation, but they lack immediacy for most of us because they don't have daily effects on our practices or our incomes. (As I have grown older, I have come to realize that all serious problems are tied in some way to money, be they domestic, political, religious, or scientific.)

When doctors didn't have to compete for patients, when hospital administrators didn't have to worry about empty beds, ethics were easy. But as fee increments are cut off at the pass by governmental and insurance carrier decree, and as patient pools shrink while physician numbers increase in the midst of sharp rises in office overhead, competition for dollars intensifies and raises the issue of unnecessary procedures performed primarily to generate cash flow.

An example: There isn't a medical meeting in the country today aimed at surgeons, radiologists, or cardiologists which doesn't feature technical descriptions of laser atherectomy or laser endarterectomy of peripheral arteries, and every hospital big enough to have departments in it has become an arena for tripartite jousts as the three specialist groups maneuver to corner the market of myriad claudicators limping around waiting to be relieved of their pain.

But the claudicators were always there, and sad experience had taught the surgeons to leave them alone unless their symptoms were severe and progressive. We learned that an occluded or stenotic superficial femoral artery did not disable the patient, and that surgery was seldom necessary and occasionally harmful. Unfortunately, now comes the laser, which in competent hands is seldom harmful when applied to the superficial femoral artery, so all of a sudden the claudicators have become fair game again, and the public is eating it up. And now the hungry specialists can, if they can narcotize their consciences sufficiently, recommend a simple, lucrative procedure which won't harm the patients and might even make them better. So why not?

So why not? Because it isn't necessary. And it is very expensive without the professional fee component.

The laser is just one example of technology with a potential to do a great deal of good with an even greater potential to bring out the worst in us. There are many such. The problem is that the scientific organizations representing the specialties involved lack the will or capability to control their members'

Continued on page 6

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Continued from page 4

excesses, and the regulatory agents and third-party fiscal agents are always a few years late. In the meantime, entrepreneurs make hay, and limited health care dollars are shunted away from legitimate objectives.

As new gadgets and techniques are developed, their application must be guided by indications which consider more factors than simple presence of a lesion. While we might admire some adventurers who climb a mountain "because it is there," heaven protect us from the specialists who employ that same reasoning in their practices. Let us hope that the ethics of progress become clearly defined and that they are taken seriously.

—Wayne J. Boulanger, MD
Milwaukee

What's our excuse?

In 1979, the Public Health Service published its *1990 Health Objectives for the Nation*. Among other things, this document included 19 objectives pertaining to pregnancy and infant health, to be met by the year 1990. Thirteen of these were designated as "priority objectives." It is now predicted that the United States will succeed in meeting only three of these objectives by next year's deadline (*MMWR* 7/8/88).

It is probably no coincidence, therefore, that, in the past 30 years, the United States' world ranking in infant mortality has slipped—from 6th in 1955 to 18th in 1985. It may be acceptable to be bested by perennial front-runners such as the Scandinavian countries, but it is, I feel, unacceptable to be left in the dust by such countries as Great Britain, Japan, and West Germany, each of which suffered terribly during World War II. Even Spain has a higher ranking than we do. (Who said the quest for lower infant mortality had to be quixotic?)

Of course, one may cite a variety of reasons for this mediocre performance. High on the list must be the fact that the United States has no national health care plan. As a result, a significant portion of its population—5 million people—is completely unprotected by any form of health insurance. Only one other developed western nation shares these dubious distinctions with the United States. That other country is South Africa. At least the South Africans can plead apartheid. What's our excuse?

A related factor in our decline as a world health leader is the misguided way in which the United States chooses to spend its health care dollars. While we argue, sue, and spend over competing health plans, malpractice, Baby Doe, Baby Fae, and Baby M, other developed countries are quietly and cost-effectively treating millions of Ms Xs and Baby Xs to competent health care and good nutrition, with fairly obvious results. The argument that the United States has simply chosen to concentrate on cutting-edge technology falls flat when we consider that the CAT Scan was developed by EMI of Great Britain, the lithotripter by Dornier of West Germany, and that Sweden and Japan pioneered development of acellular pertussis vaccine.

Could politics have something to do with it? I don't know—except to say that a Republican has been in the White House for 24 of the past 36 years, 1953–1986.

When you get a moment, look up those Public Health Service objectives in the *MMWR*. You will see that they aren't all that formidable. This country could have met them. We just didn't try.

—Jeffrey H. Lamont, MD
Wausau

Paying the bill for firearm injuries

Taxpayers pay most of an estimated $1 billion annual cost associated with firearm injuries, according to a study published in a recent issue of *JAMA*. The study examined hospital costs and sources of payment for all firearm injuries in San Francisco during 1984. Public sources (Medi-Cal, Medicare, the Medically Indigent Adult Program, the jail system, the Victims, Witnesses and Assistance Program, and the county hospital) paid 86% of the total hospitalization costs for 131 firearm injuries examined. Based on the average medical cost per patient in San Francisco and an approximate number of hospitalizations (62,075) for firearm injuries nationwide, the authors estimated the total cost nationally to be $429 million per year. After adding other direct and indirect costs, the estimate rose to more than $1 billion.

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Letters

Child abuse reporting law needs changes

TO THE EDITOR: In the October 1988 issue of the *Wisconsin Medical Journal*, Dr Jeffrey Lamont presented a persuasive case for child abuse reporting laws. While there can be no real argument that such laws are essential in cases in which physicians see the victims of abuse, his discussion failed to include situations in which physicians learn of abuse while treating the perpetrators.[1] The statute[2] *requires* professionals (including physicians) to report suspected child abuse if they have seen the child "in the course of professional duties," and states that they *may* report their suspicions (without liability for breach of confidentiality[3]) even if they have not seen the victim.

Treatment of perpetrators offers society one of its best hopes of interrupting ongoing abuse. If therapists are to be able to provide effective treatment, they must not be under obligations to report *past* abuse, which can happen if they see former victims as part of family therapy, or even casually in their offices. Ongoing or potential future abuse must still be reported, of course, under the recent *Schuster*[4] decision, as well as under the child abuse reporting statute. The only necessary action to be taken in the case of previously unreported past abuse is to ensure that the victim has the opportunity for treatment if necessary, which can be accomplished without reporting the abuser. Under the current statute, it is even conceivable that therapists could end up testifying in criminal proceedings against their patients.

The statute needs to be modified to prevent therapists from having to report or to testify against their patients, as has been done in other states. Such modifications would preserve the current benefits of the procedures without sacrificing any necessary protections and without jeopardizing the effectiveness of therapy for child abusers.

—Robert D. Miller, MD, PhD
Madison

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1. Miller RD, Weinstock R: Conflict of interest between therapist-patient confidentiality and the duty to report child sexual abuse. *Behavioral Sciences and the Law* 1987;5:161–174.
2. Wisconsin Statutes Ch. 48.981
3. Opinion of the Attorney General to Pamela J. Kahler, March 16, 1987.
4. *Schuster and Schuster* v *Altenberg et al.* No. 87-0115 (Wis. Sup. Ct., opinion filed June 1, 1988).

Editor's note: Dr Miller is the training director at the Mendota Mental Health Institute's forensic center, a clinical associate professor of psychiatry and lecturer in law at the University of Wisconsin–Madison, and a clinical associate professor of psychiatry at the Medical College of Wisconsin.

Voice of the SMS

Evaluating the Medical Mediation Panels

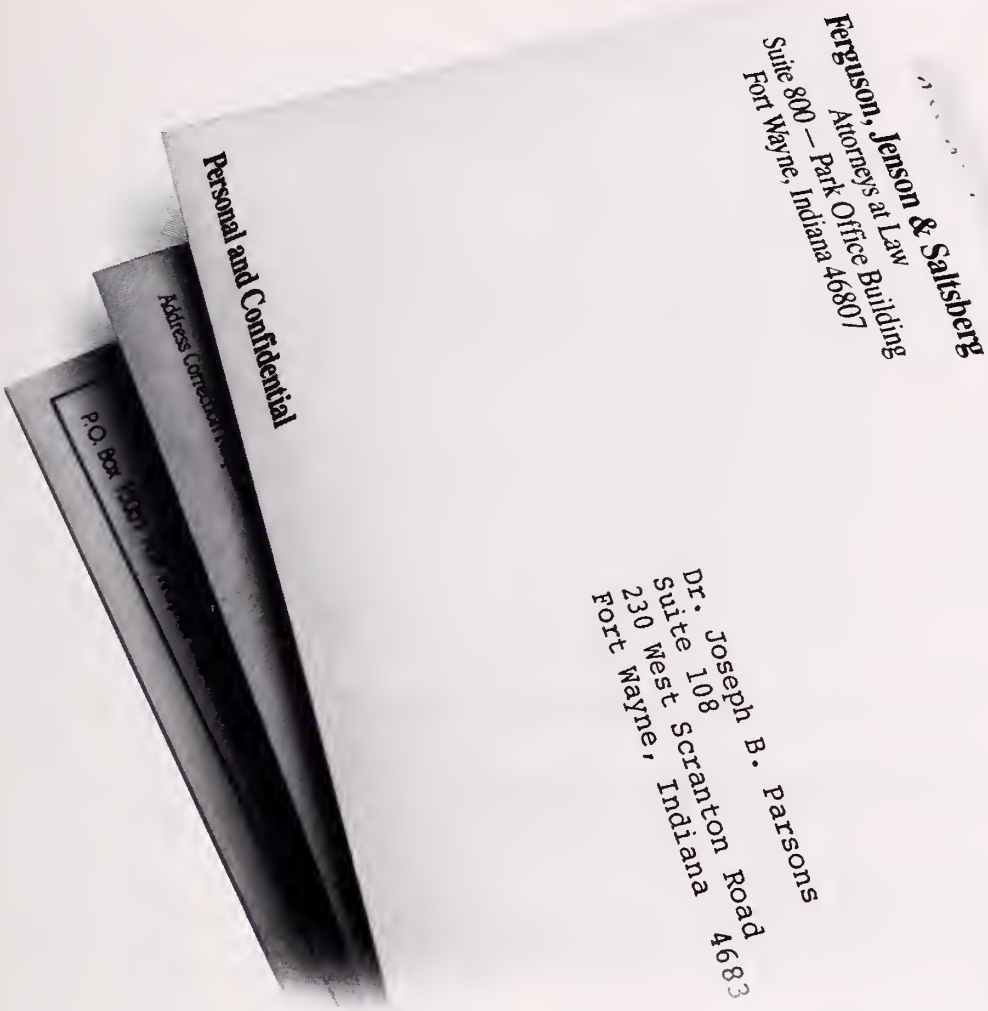
ON PAGE 25 of this issue of *WMJ*, Randy Sproule, administrator of the Medical Mediation Panels, offers a second report on the efficacy of the panels in resolving medical professional liability disputes. Sproule presents very positive and encouraging data on the first 300 cases brought before the panels and concludes that they are "definitely a step in the right direction."

The results thus far are what the SMS had hoped for, but will they stand the test of time? Trends in medical professional liability are slow to develop, and the results of innovations take a long time to materialize. Another 3 to 5 years must pass before the effects of the panels can accurately be evaluated.

While presenting an overall optimistic picture, the data can be ambiguous. On the up side, the percentage of unsettled cases in which the statute of limitations expired before a court action was commenced rose from 12% to 18%, and the percentage of unsettled and unfiled cases for which court action could still be taken fell from 12% to 3%. On the down side, for instance, the percentage of cases settled at or shortly after mediation actually fell from 9% in the 1987 report (*Wis Med J* 1988; 1:28–29) to 8% in the current report. Such a change is statistically of little significance, but it does underscore the need for caution and further study.

The effects of the panels, in these early stages, seem good as far as they go, but the SMS is hoping for—and working for—more. The SMS Blue Ribbon Task Force on Alternatives to the Tort System is a sign of even greater possibilities ahead. The SMS believes that this is where hope for the future lies, and where the most significant progress can be made.

Crisis in black and white.



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Soundings

Two poems

Sheri Ann Hunt, Milwaukee

Spells

Some spindle must have pricked her
She's been asleep
A hundred hours,
So it seems.
Quiet is over this castle
Oxygen whizzes around her head
Making promises.

Thorns grow up around her bed
Dripping some heady nectar
  veinward.
Every morning a handsome prince
Drops by to take her pulse.
Why don't you just kiss her?
It's in the books
As the intoxication of choice
In cases like this one.
A secret dragon lurks by her bed
Beeping and wiggly spiking,
Standing careful guard.
Even if it breathed flat-fire
She wouldn't wake.

Hunt is a second-year student at the Medical College of Wisconsin in Milwaukee. Reprint requests to: Sheri Ann Hunt, 11829 148th St E, Puyallup, WA 98374. Copyright 1989 by the State Medical Society of Wisconsin.

Blind Girl

You wore your socks a certain way
I could hardly pull them free
To see if you still had pulses
Under the dry skin of your feet.

I see the sweat of days
Bead on your chest
I listen to hope
Steadily thump in my earpieces.

I came here as a voice
Stayed as a touch.
Trembling only a little
But thankful I was unseen.

I saw (but didn't say I saw)
The brave cut some faceless surgeon
Made in you.
Puckered braille on your belly.

You are frozen in time
Still with beads of sweat
Cooling in the dark air
Of some sightless inner grotto.

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Wisconsin's family physician shortage

John W. Beasley, MD, Madison

This paper analyzes current and future needs for primary care physicians —particularly family practice physicians—in Wisconsin in light of predictions of a national physician glut by the year 1990. The current shortfall of family physicians is estimated to be at least 150, with the most severe deficits found in rural and underserved urban areas. Forty-nine to 79 family practice physicians will be needed each year to meet the growing demand and to replace losses due to retirement, speciality change, and other factors. At the current rate of training, 63 new family physicians will enter pratice each year; it appears that the current deficit will be made up slowly, if at all.

The number of primary care specialists appears unlikely to increase due to the declining interest in the speciality among medical students; only half the number of new family physicians entering practice each year will enter practice in 1994, resulting in an additional shortfall of about 30 to 50 family physicians each year. Programs should be undertaken at medical schools to bolster student interest in family practice and primary care.
Wis Med J 1989;1:11–14.

WITHIN THE PAST TEN YEARS there has been considerable talk of an approaching "physician glut." The 1980 report of the Graduate Medical Education National Advisory Committee (GMENAC) to the secretary of the US Department of Health and Human Services[1] predicted that by the year 1990 there would be a surplus of 70,000 physicians nationally. For the year 2000 the projected surplus was 145,000. The projected numbers of primary physicians, however, including family physicians, was felt to be about right, especially when compared to most subspecialties. The report suggested "prompt adjustments in the number of residency training positions in individual specialties to bring supply into balance with requirements." These adjustments have not occurred.

The 1986 Lewin report[2] to the Wisconsin legislature suggested that there is an approximate balance to slight over-supply of physicians, with some regional shortage areas and "less than optimal" specialty distribution, ie, a relative shortage of primary care physicians (including family physicians) and surpluses of other specialists.

The Lewin report suggested that the 1985–86 training levels were "about right," but failed to take into account early indicators of increasing problems in both medical student and resident training in family practice and related primary care specialties. These problems, which are discussed below, are leading to a probable shortage of primary medical services, which will be most acute in rural areas, and of family physicians.

The 1988 report of the Wisconsin State Medical Society's Rural Health Task Force[3] found that an increasing number of communities feel they have an inadequate number of physicians and that many physicians are experiencing problems with recruitment of colleagues.

Rural communities are particularly cognizant that the issues are not merely medical. The presence or absence of a well functioning health care system in a community has great impact on the social and economic health of that community, as well as on the physical health of its members. In many rural communities the health care industry is the largest single employer in the community.

This report will analyze what seems to be a rapidly changing physician manpower situation in Wisconsin.

Dr Beasley is an associate professor in the Department of Family Medicine and Practice at the University of Wisconsin Medical School in Madison. Reprint requests to: John W. Beasley, MD, Department of Family Medicine and Practice, 777 S Mills St, Madison, WI 53715-1849. Copyright 1989 by the State Medical Society of Wisconsin.

While it has not originated either from a consensual group process or from a high-level expert analytic process (such as the GMENAC Report) the errors contained in this paper may be no greater than the errors contained in those reports. Numerical estimates are based on the most recent evidence and should have reasonable accuracy. In addition, some non-statistical data were used where this seemed to be a reasonable way to help to assess the situation. Although the estimates in this report can certainly be contested, the overall conclusions appear to be on reasonably firm ground.

How big is the current family physician shortage?

Any answer to this question must rest upon value-laden assumptions. If we assume that the ideal ratio is one family physician for each 3,000 persons, then the state of Wisconsin is short by more than 300 family physicians at this time.

This estimate may not be too far off since, for areas without access to other health care, a figure of one family physician for each 2,500 persons may be more realistic. For urban areas a somewhat smaller figure is realistic since other primary care specialists can fill part of the need.

It must, noted, however, that family physicians also remain in considerable demand in well-served urban areas as various managed-care corporations attempt to give more cost-effective care.

It can be conservatively estimated that there is an immediate need in underserved settings (rural and urban) for at least 150 family physicians and that another 100 would be absorbed by groups intent on increasing their level of service.

The predictions of an imminent physician glut are being challenged, especially for rural and other underserved areas, and for primary care physicians, particularly family physicians. At this time in Wisconsin there are 37 federally defined Health Manpower Shortage Areas (HMSAs).

Will the shortage of family physicians increase or decrease?

The University of Wisconsin's Office of Rural Health New Physicians For Wisconsin Project has noted that, contrary to the projections of the GMENAC Report, the number of communities searching for physicians seems to be increasing. While the office assisted 45 communities searching for 65 physicians in 1983, it helped 87 communities seeking more than 100 family physicians in 1988. Family physicians are requested more frequently than all other specialties combined. The trend in the past two years suggests that the demand will increase at an even faster rate in the coming years (F. Moskol, personal communication, 1988). It should be noted that not all communities seeking family physicians are listed with the Office of Rural Health.

There are many reasons for the unexpected demand, some relating to the fact that physicians are retiring earlier and more completely than previously. Fewer physicians are phasing out their practices as they reach their retirement years. The reasons for this may relate in part to increasing medical liability insurance premiums and the increasing threat of suits, greater difficulty keeping up with the increasingly rapid advances in medical knowledge, and the increasingly burdensome administrative constraints on patient care that limit physician options.

At the same time, there is a trend for communities to want to improve their service levels. As service levels have improved, demands for these services have also increased, and some communities adding new physicians find that the demand for services has risen even faster than the increase in physician manpower. Added to this is the fact that the population is aging and requiring more care. This latter trend will accelerate markedly by the year 2010 as the "baby boomers" enter their retirement years.

It also appears that recent graduates of medical schools are not as productive—in the sense of seeing large numbers of patients—as their predecessors. There is a slower practice pace as physicians move toward more comprehensive care patterns with a greater emphasis on preventive medicine and patient education. The trend in reduced workload is also accelerated as lifestyle considerations become more important to physicians and corporate managed-care structures become more prominent.
more prominent.

Additional problems, especially in the area of obstetrics, will be upon us in the very near future. Physicians tend to drop obstetrical care from their practices when the malpractice premium surcharge reaches about $6,000. We have reached that point in Wisconsin. While 77% of the family physicians in Wisconsin provide obstetric services, that percentage will probably drop significantly in the next few years.

The April 7, 1988 issue of the *New England Journal of Medicine* contains two articles that are relevant. The first one, by Schwartz et al,[4] uses GMENAC data and revises the projections slightly. It finds no projected surplus between now and the year 2000. The second article, by Schloss,[5] suggests that substantial shortfalls in physician manpower will occur between 2010 and 2030, particularly in the area of primary care services for the elderly.

While these years seem far in the future, it must be noted that for students entering medical school this year, the 20 years between 2010 and 2030 will be the most productive of their professional lives. The problems of advance planning become evident with the realization that there is a minimum of eight years between the time a student applies to medical school and the time he or she completes residency and that an additional ten years pass before the peak of practice occurs.

What will be the continuing need for family physicians?
Of the 1,100 family physicians who are members of the American Academy of Family Physicians (AAFP) and are currently practicing in the state, 27% are over the age of 55 and will thus be retiring within the next ten years. This means that a minimum of 20 family physicians and general practitioners will be lost each year. State medical license data (which include more rural general practitioners who are not AAFP members) suggest that the number who will retire in the next ten years is closer to 575; thus at least 50 physicians a year will be needed to make up for retirement loss alone (F. Moskol, personal communication, 1988).

An additional 2%—or 18 physicians—is probably needed each year to make up for specialty changes, death and other losses.

Thus, there will be an additional and continuing need for 38 to 68 new family physicians a year just to make up for retirement, illness, death and specialty change. Lacking accurate data, it is assumed that the rate of physician immigration into the state is roughly equal to the rate of emigration to other states.

The increasing needs of a population that has both rising age and rising expectations must be considered. Conservatively, this can require a 1% increase in the number of physicians each year. For family physicians, this would require 11 more each year. A report by Steinwachs[6] suggests that the reliance on managed care will reduce physician needs significantly. Considering the data cited previously, however, this does not appear to be holding true as more information becomes available. In any case, the magnitude of the savings in physician manpower does not appear to be as great as anticipated in Steinwachs's paper or in the GMENAC Report.[1]

Considering all these factors, it appears that at least 49 and perhaps as many as 79 new family physicians will be needed each year to make up for losses and increased demand.

What is the anticipated rate of production of new family physicians?
The combined residencies of the University of Wisconsin, the Medical College of Wisconsin, and the Mayo Clinic School of Medicine at LaCrosse currently graduate a maximum of 70 residency-trained family physicians per year. Of these, about 10% do not actually enter family practice, going instead into other specialties or other forms of practice (eg, emergency room practice). Other primary care specialties have even more problems with attrition. Only 40% of the graduates of internal medicine residencies stay in general internal medicine, with the remainder choosing subspecialties.

If the current rate of training is maintained, 63 new family physicians will enter practice each year. Based on the more conservative estimates, 49 will go to meet new needs and 14 to relieve the current deficit of 150 physicians.

The most acute need is in rural areas, which are dependent almost exclusively upon family physicians. There is also, however, an increasing demand for family physicians in urban areas, as data showing that family physicians are the most cost-effective providers in managed-care practices accumulate and begin to fuel managed-care system staffing demands.[7]

Thus, while it is hard to quantify accurately the need for family physicians in Wisconsin (witness the doubts regarding the accuracy of the GMENAC Report) the above estimates seem reasonable and perhaps even conservative; and the shortfalls—both present and future—will have the greatest effect on the rural areas of Wisconsin.

There is also a new problem on the horizon. It is by no means certain that the number of students choosing to specialize in family practice will remain as high as it is now. The attraction of higher paying, procedure-oriented, and more prestigious specialties in the high-tech fields is apparently decreasing the level of student interest in family practice. Nationally, there was a 9% reduction in the number of students entering the field in 1988, and schools in Wisconsin have had even greater reductions.

The problem is not limited to family medicine alone. Data suggest that all primary care specialities (primary internal medicine and general pediatrics) are also becoming less popular with students, even while there is a greater need than in some of the subspecialty areas.

Data reported by Colwill,[8] predict continuing declines in the percent of medical school graduates who choose primary care training (see the Table). Whether these projections are accurate is, of course, open to question. The disturbing data on which they are based, however, suggest they may be.

A declining interest in family medicine among college students taking medical school entrance examinations is also evident. In 1978 37% of premedical students indicated family medicine as a probable career choice.

Specialty choice of medical school graduates
(% of graduates entering primary care training)

	1982	1987	1991 (projected)
Family practice	15.5	14.8	6.1
General internal medicine	14.3	8.6	5.8
General pediatrics	6.2	5.7	5.4
Total primary care	36.0	30.1	17.1

By 1983 this figure had dropped to 24% and by 1987, to 16%. By contrast, despite projections of large surpluses, interest in the surgical subspecialties (eg, orthopedics, plastic surgery, and thoracic surgery) increased over this period from 15% to 28%. Thus, the trend of more physicians entering the subspecialties rather than the primary care specialties may be even more accelerated than forecast by Kindig and Dunham,[9] who estimated that the percent of primary care physicians will drop from about 39% in 1980 to 32% in the year 2020.

At the current rate of production of our family practice residency programs, the deficit in the numbers of family physicians in Wisconsin will at best be corrected slowly. If trends in student interest are not countered by aggressive educational and research programs, the deficit may get far worse. This will be especially true in the rural and other underserved areas of Wisconsin.

To reduce the projected deficit, medical schools should work to develop strategies that will make primary care careers, especially those in family practice, more attractive to students. They should begin to develop programs that will improve education in the primary care specialties in all years of the medical school curriculum and that will enhance their prestige by developing a more academically credible research base. Accurate information regarding family practice as a career option is available[10] and medical students should be made aware of both the positive and the negative aspects.

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Wisconsin Clearinghouse

The Wisconsin Clearinghouse is a state agency for information on alcohol and other mood-altering drugs, primary prevention, mental health and other health topics.

Housed at the University of Wisconsin–Madison, the Clearinghouse offers many publications which are suitable for patient information, as well as for professional reference. Dozens of these are available at no cost to Wisconsin residents, except for shipping and handling, and a separate catalog lists more than 30 other publications available for purchase.

Some publications are produced by the Clearinghouse staff, while others are provided by the Wisconsin Office on Alcohol and Other Drug Abuse, the National Institute on Drug Abuse, the Addiction Research Foundation and other organizations.

In addition to pamphlets, books, professional manuals, public awareness kits and curricula, the Clearinghouse offers many colorful posters designed to appeal to people of many ages and interests. Also available are video tapes on marijuana, caffeine, and the dangers of chemicals unknown to children.

The Clearinghouse staff also evaluates films and publications from other sources. Synopses, ratings and other information on these resources are available on request.

Wisconsin Clearinghouse office hours are 8:30 am to 4:45 pm, Monday through Friday. Publications can be ordered by mail or phone. For more information, contact the Wisconsin Clearinghouse, Dept MJ, PO Box 1468, Madison, WI 53701 (608-263-2797).

Surgical procedures for choledochal cysts

John T. Goswitz, MD, Manitowoc

The case of a 27-year-old man who became symptomatic for a choledochal cyst at the age of 6 months is presented. Treatment of this patient mirrored the major surgical procedures recommended in the literature over the patient's lifetime. The surgical procedure that seems to be curative is excision of the cyst with Roux-Y hepaticojejunostomy. This procedure eliminates the major complications of this disease, which are biliary obstruction, ascending cholangitis, biliary cirrhosis, malignant degeneration, and, occasionally—as in this patient—erosive ulceration with bleeding. *Wis Med J* 1989;1:15–16.

THE ACCUMULATION of an adequate number of cases in those rare diseases that depend entirely on surgery for a cure may take so long that the surgical procedure finally emerging as curative may not become evident for a generation. The choledochal cyst is such a disease.

In the last 60 years, the surgical procedures that have evolved in an attempt to cure the disease have progressed from cholecystoduodenostomy to choledochocystoduodenostomy to Roux-Y choledochocysystojejunostomy. Finally, in the last 15 years, the surgical procedure that is now considered curative is total excision of the cyst and Roux-Y hepaticojejunostomy.

This report reviews the surgical procedures performed on one patient over a 27-year period, reflecting those recommended in the surgical literature.

Case report

The patient, T.M., was born after normal gestation in January 1961. Beginning at the age of 6 months, he had attacks of abdominal pain, nausea, and vomiting. He was never jaundiced nor was a mass palpable. Examination by roentgenogram and surgical exploration in July 1964 confirmed the presence of a choledochal cyst, and a cholecystoduodenostomy was performed.

Within six months, the pain, nausea, and vomiting recurred. As before, the patient was not jaundiced and no mass was palpable. Because of persistent severe pain, a choledochocystoduodenostomy was performed in June 1967.

In 1975 the patient began to experience recurrent episodes of right upper quadrant abdominal pain, nausea, and vomiting. Again, the patient was not jaundiced. Upper GI exams in 1976 and 1979 showed a patent anastomosis with free reflux from the duodenum into the biliary tract.

In 1984 upper endoscopy and biopsy confirmed duodenitis at the anastomosis. Greatly thickened duodenal folds and inflammation were also visible. Surgery was recommended to the patient, but he refused it.

In July 1987 the patient was admitted to the hospital through the emergency room with a hemoglobin level of 7.3 g/dL. He also reported passing black stools for the preceding seven to ten days and suffered from upper abdominal pain, nausea, and vomiting. Upper endoscopic examination confirmed that fresh blood was passing through the choledochocystoduodeostomy into the first part of the duodenum. On his second hospital day and after receiving 11 units of blood, the patient was taken to surgery, where a cholecystectomy, take down of the choledochocystoduodenostomy, excision of the cyst, and Roux-Y hepaticojejunostomy were carried out. During the procedure the patient required four more units of blood.

After surgery the patient healed without complications and has remained asymptomatic.

Discussion

This patient's treatment history mirrors the gamut of diagnostic and surgical procedures recommended through the years for the treatment of choledochal cysts.

The classic triad of pain, presence of a mass, and jaundice are still the predominant symptoms in patients with choledochal cysts. This patient never had a palpable mass or jaundice, but as Flannigan found,[1] this classic triad may be present in less than 40% of cases, and not all of them may be present at the same time. The origin of the cyst is probably congenital, although the onset of symptoms may not occur until the third or fourth decade.[1]

The diagnosis by barium contrast and plain film is poor at best. Abdominal ultrasound and ERCP are the only means of making a definitive preoperative diagnosis.[2] In 1964 the original diagnosis was made by plain abdominal films in this patient. By 1987 the diagnosis of bleeding from the cyst was made by upper endoscopy.

The findings at surgery in 90% of cases are cystic dilatation of the common bile duct (Alonso-Lej Type I).[3] Diverticula of the bile ducts (Alonzo-Lej Type II) and choledochoceles (Alonso-Lej Type III and IV) are much more uncommon (Fig 1).[4]

The treatment is purely surgical and has evolved through a slow accumulation of cases because of the rarity

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of the disease (Fig 2). Prior to 1960 the recommendations of Robert Gross were followed in the majority of pediatric surgical problems.[5] In his book *The Surgery of Infancy and Childhood*, Gross is quoted in regard to the surgery of these cysts:

> Excision of the cyst should never be attempted, for it is unnecessary and it is productive of dangerous surgical shock . . . The gallbladder may be united to the stomach or duodenum, but the best treatment of all is to anastomose the cyst directly to the duodenum.

Thus, in the 1960s, cystduodenostomy was considered excellent treatment.[6] In 1964 this patient's gallbladder was anastomosed to his duodenum, and in 1967 the cyst was anastomosed to his duodenum. Neither of these procedures, however, relieved his symptoms.

During the late 1960s and early 1970s it became evident from surgical experience that the cyst either had to be removed or separated by Roux-Y from the mainstream of the digestive tract. Many reports began to appear in the literature about the complications of cystduodenostomy,[7] and by 1975 cyst excision and Roux-Y hepaticojejunostomy began to show success in patients worldwide (Table).

By the late 1980s it became apparent that removal of the cyst with Roux-Y hepatocojejunostomy was the best procedure. This procedure was offered to this patient in 1984, but he refused. Since 1980 numerous reports have confirmed the efficacy and successful results when a Roux-Y hepaticojejunostomy is constructed (Fig 3).[8-10]

In 1987 the patient was admitted with upper GI bleeding from erosion of the mucosa in the choledochal cyst. Excision of the cyst with Roux-Y hepaticojejunostomy was performed on an emergency basis to alleviate his symptoms. He has remained asymptomatic.

The major complications associated with these cysts are biliary obstruction, ascending cholangitis, biliary cirrhosis, and an incidence of malignancy that has been reported in the Japanese literature to be as high as 30%.[11] Also, as in this case, massive bleeding can occur from erosion of the mucosa inside these cysts. Excision of the cyst with Roux-Y hepaticojejunostomy eliminates all of these problems.

The surgeon should keep in mind, however, that cystduodenostomy or Roux-Y cystjejunostomy may be the procedure of choice in the abdomen with a hugely distended cyst. This should be a purely temporary procedure, and complete removal of the cyst with Roux-Y hepaticojejunostomy should be performed as soon as the patient's condition permits.

Acknowledgement

This article was adapted from Dr Goswitz's presentation at the Wisconsin Surgical Society meeting in April 1988.

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Choledochal cysts—operative results* (235 patients; 282 procedures)

Operation	Cases	Morbidity No., (%)	Reoperations No., (%)	Mortality No., (%)
Excise with Roux-Y	83	7 (8)	0 (0)	6 (7)
Choledochocystojejunostomy with Roux-Y	53	18 (34)	7 (13)	9 (17)
Choledochocystojejunostomy	12	6 (50)	5 (42)	1 (3)
Choledochocystoduoenostomy	93	55 (58)	35 (38)	6 (5)

*From Flanigan[1]

Exploring environmental cycles in psychiatric patients

Jonathan L. Temte, MD, Madison

The daily psychiatric inpatient population at a large medical center recorded over a two-year period and consisting of 11,864 inpatient days was analyzed for circannual (365-day) and synodic (29.53-day) cycles. A highly significant circannual cycle, in which the population peaks in early February, was found. This cycle was compared to seasonal cycles of photoperiod, sunlight, and temperature and was found to be highly correlated with each. The best correlation was between patient population and photoperiod during the previous month. A significant synodic (lunar) cycle, with a peak in patient census occurring at the last quarter moon, was also found. *Wis Med J* 1989;1:17–20.

OUR PERSONAL EXPERIENCE with environmental cycles is more likely to be defined by sporting seasons, heating and cooling bills, and the inconvenience of yard work rather than by the availability of food, physiologic heat stress, or disease. Nevertheless, until the relatively recent past, the human species was more intimately associated with significant cyclic changes in the environment, and vestigial responses to these changes are still relevant to health and disease.[1] For example, conception in the United States follows a consistent seasonal pattern, peaking in November and December.[2] Prescriptions written by British general practitioners for non-psychotropic medications show a circannual cycle with maximum dispensation occurring in January.[3] A review of epidemiologic studies has revealed that unipolar depression and suicide rates are greatest in the spring, while bipolar depression seems to occur most frequently in the spring and fall.[4]

Circannual rhythms (365 days) are most evident in cycles of photoperiod (day length), amount of sunlight, and temperature (Fig 1). Recent work with seasonal affective disorder has shown a high correlation between depressive symptoms and seasonal factors of photoperiod and temperature.[5] Other researchers have demonstrated that patients with seasonal depression respond favorably to treatments of bright white light,[6-8] suggesting that seasonal decreases in photoperiod play a role in this condition. Furthermore, others have suggested that as many as 20% of all persons may experience significant seasonal changes in mood and energy.[9]

Significant seasonal peaks (June and December) of antidepressant prescribing were noted for male patients of British general practitioners.[10] In Wisconsin, one study found that the dispensation of amitriptyline peaked in late February in a small, south-central community (J.L. Temte, MD, and J. Beasley, MD, unpublished data). Temperature has been implicated as a major factor in an annual rhythm in the battering of women;[11] rates of reported abuse increased directly with ambient temperature.

Other infradian cycles (periods of greater than one day) have occasionally captured the attention of researchers and the popular press, especially synodic (lunar) cycles of 29.53 days. Compared to the wealth of anecdotal evidence of the lunar effect on violence, emotional disturbance, and birth rate, there is little discussion of this phenomenon in the scientific literature. Significant lunar periodicity has been reported for homicides,[12] but this study's conclusions have been contested.[13] In addition, other reports found no significant relationship between phases of the moon and psychiatric emergency room visits[14] or suicides.[15] Although

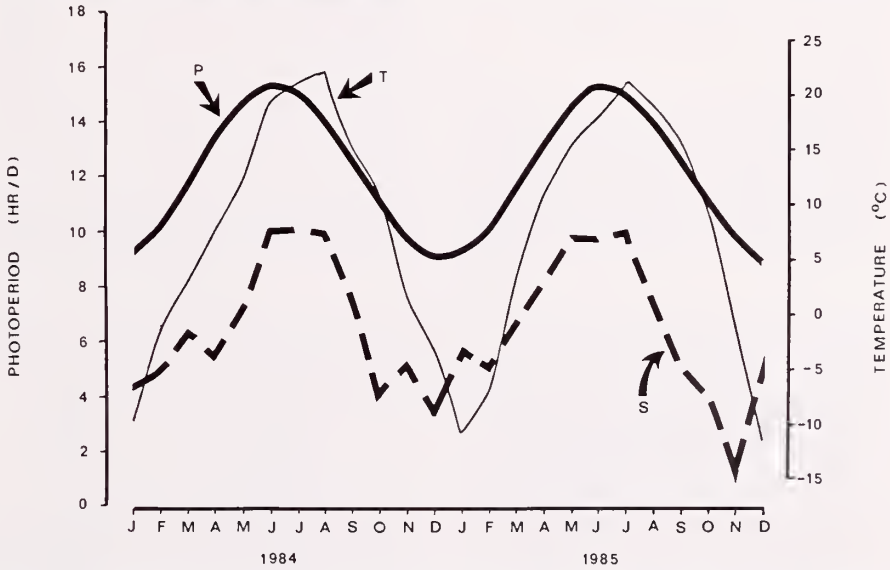

Fig 1.—Monthly mean photoperiod (hours/day: heavy line), sunlight (hours/day: dashed line) and temperature (°C: fine line) for Madison, Wisconsin (44°N latitude) during period from January 1984 to December 1985.

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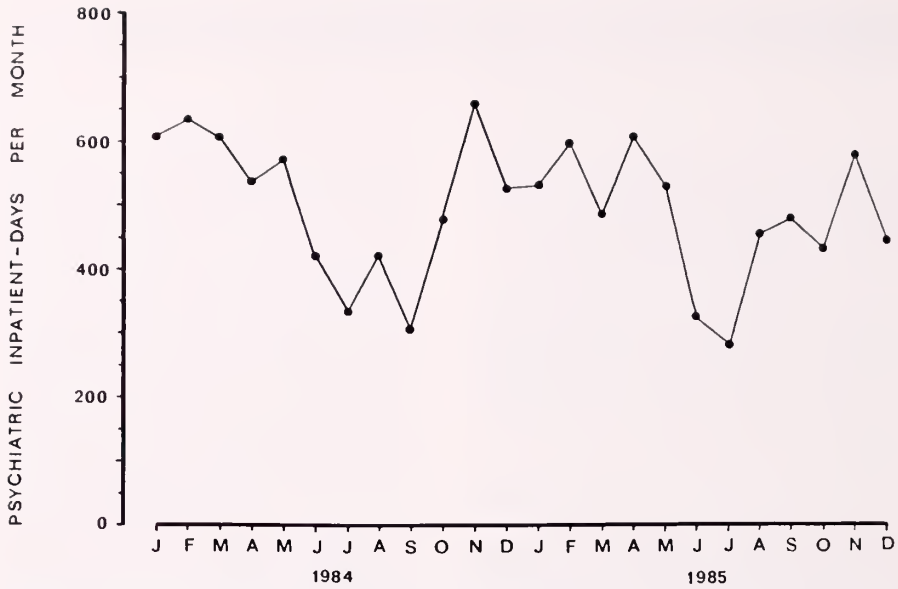

Fig 2.—Monthly totals of psychiatric inpatient days during period from January 1984 to December 1985.

an increase in the New York City birth rate has been noted during the bright half of the lunar month, it accounted for only 1.01% more births than during the dark half.[16]

This study employed orthogonal analysis[17] to investigate cyclic trends in a psychiatric inpatient population. Further, significant cyclic trends are statistically compared to environmental variables of photoperiod, sunlight, and temperature and lunar cycles to examine their possible effects on psychiatric patient census.

Methods

Data base. The number of psychiatric inpatients at Meriter-Madison General Hospital in Madison was obtained for each day of the period from Jan 1, 1984, to Dec 31, 1985. The data were routinely collected for hospital records and not selected regarding diagnosis, age, sex, or length of stay. No patient identification was included, insuring confidentiality.

Cyclic analysis. The data were examined using linear regression to check for temporal trends (increasing or decreasing inpatient population) over the two-year study period. After no such trends were found, orthogonal analysis[17] was used to determine if significant circannual and synodic cycles were present in the study population. For synodic cycles, the day of the new moon was designated as day 0 with following days assigned sequential numbers. Information on the phases of the moon was obtained from the National Weather Service. Two complete circannual cycles and 24 complete synodic cycles were analyzed.

Relationship to seasonal variables. The total number of inpatient days was calculated for each month and compared, using linear regression, to mean photoperiod, sunlight (hours of direct sunlight per day), and temperature (°C) for the same month and, in a second regression, to the values from the previous month. Monthly mean photoperiod at Madison was calculated from meteorologic tables;[18] sunlight and temperature data were obtained from the National Weather Service and are provided in Fig 1.

Results

Circannual cycles. The two-year study period produced a total of 11,864 psychiatric inpatient days. Monthly totals of inpatient days are provided in Fig 2. There is significant seasonal variation in the psychiatric inpatient census ($\chi^2 = 320.8$; df = 2; $P<0.001$), with the peak occurring on Feb 3.

The study group also shows a significant correlation to photoperiod, sunlight and temperature (Table). Of special interest is the higher significance achieved with regressions of census to seasonal variables of the preceding month. Although all of the regressions are highly significant ($P<0.01$), the mean photoperiod of the previous month yields shows the best correlation (Fig 3).

Synodic cycles. When the 24 synodic periods were analyzed, a significant cycle of inpatient population was found ($\chi^2 = 37.86$; df = 2; $P<0.005$).

Regression analysis of psychiatric inpatient population to seasonal environmental variables.

Inpatient days per month *v.*	slope	R^2	t-value	P value
Monthly Mean Photoperiod	−25.98	0.309	−3.1384	0.01
MMP of preceding month	−33.72	0.521	−4.8924	0.001
Monthly Mean Sunlight	−24.46	0.313	−3.1644	0.01
MMS of preceding month	−29.33	0.469	−4.4075	0.001
Monthly Mean Temperature	−6.18	0.408	−3.8960	0.001
MMT of preceding month	−6.46	0.448	−4.2245	0.001

An estimated peak in patient census, with an amplitude equal to 12% of the population, occurs on the day of the last quarter moon. (day 22.5;Fig 4). Also, the greatest rate of census increase at the time of the full moon was noted.

Discussion

Circannual cycles. A significant circannual cycle appears to exist in this group of psychiatric inpatients, with an estimated peak occurring in early February. This corresponds to the reported peak in amitriptyline dispensation discussed earlier and is highly correlated with seasonal cycles of photoperiod, sunlight, and temperature. As data were selected without regard to diagnosis, age, sex, or other parameters, further discussion is speculative.

The influence of changes in day length on depression, however, has been clearly demonstrated in a subset of depressed patients.[4] Rosenthal et al reported that children and adolescents appear to experience seasonal depression,[19] and Bick suggested that more severe depressive disorders overlap with seasonal affective disorder.[20] More recently, seasonal premenstrual syndrome has been described and shown to be improved with light treatments.[21]

In this study mean photoperiod, sunlight, and temperature correlate significantly with patient census, with photoperiod of the preceding month producing the highest significance. Sunlight and temperature, which are dependent on photoperiod, appear to be less important in influencing the psychiatric patient census. Rosenthal et al found a similar one-month lag between photoperiod and onset of depression in patients with symptoms of seasonal affective disorder.[5]

Light has been used successfully to treat seasonal affective disorder. Initially, studies used early morning and late evening light to achieve the desired effect. More extensive studies have shown that the intensity and duration of phototherapy are important,[22] but that the timing is not critical.[7,23] Also, exposure of the eye to bright white light was found to be much more effective than skin exposure in alleviating depression.[22] The putative mechanism for light's effect on mood involves the retino-hypothalamic-pituitary axis, and may be mediated by melatonin,[24] but the debate on the role of this pineal hormone continues.[7]

It has been estimated that 20% of the population may suffer from significant seasonal mood swings.[9] Extrapolation from this study (Fig 3) indicates that seasonal light changes may account for as much as 22% of the psychiatric inpatient population. Methods using other psychiatric patient populations may help to better define the role of photoperiod in psychopathology.

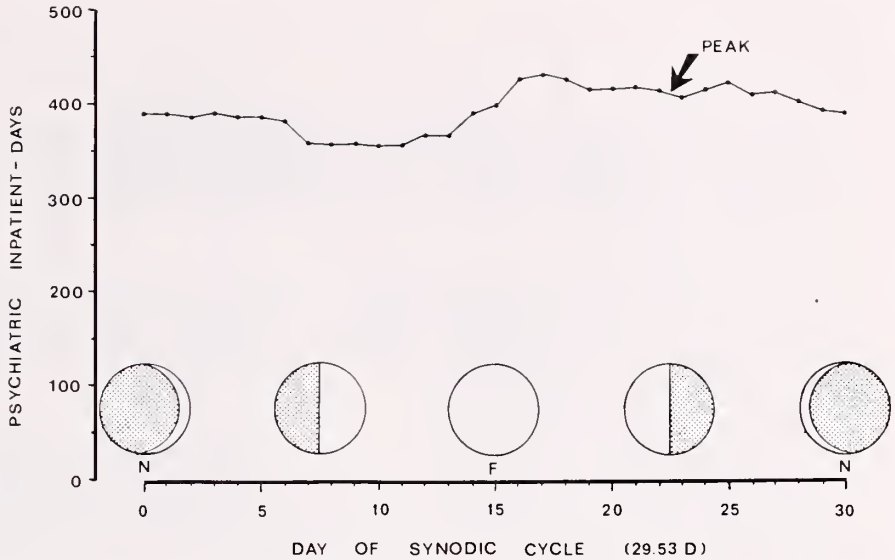

Fig 3.—Regression of psychiatric inpatient days per month to the monthly mean photoperiod of the preceding month (slope = −33.72; $R^2 = 0.521$; $P<0.001$).

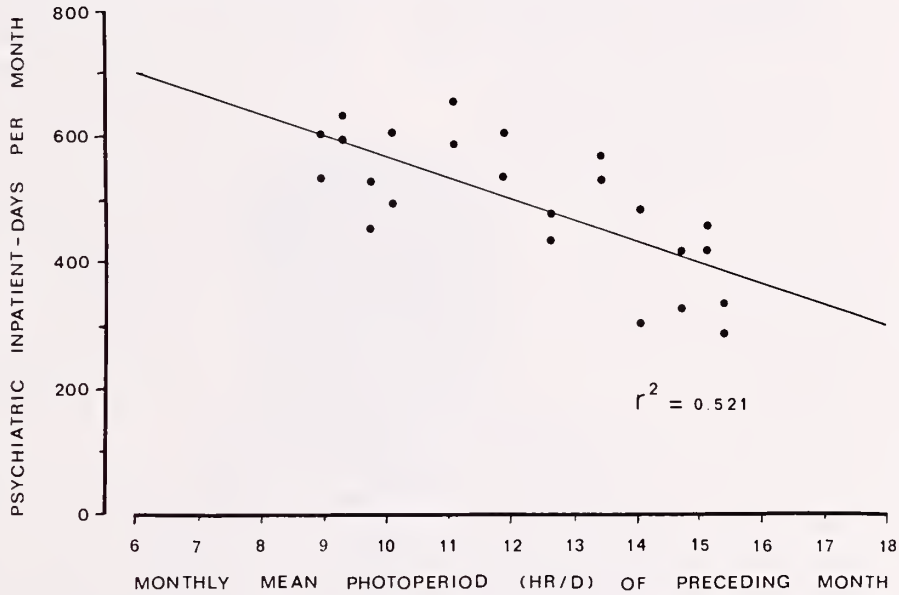

Fig 4.—Daily totals of psychiatric inpatient days over 24 complete synodic cycles. Phases of the moon are shown diagrammatically: day 0 = new moon; day 15 = full moon. Arrow indicates statistical peak ($\chi^2 = 37.86$; $df = 2$; $P<0.005$).

Synodic cycles. The presence of a significant synodic cycle in this patient population was unexpected. Although extensive information exists in the popular literature regarding the effect of the moon dating to the time of Hippocrates,[25] systematic approaches to the subject have been fraught with questionable conclusions. Homicide rates have been reported to peak with the full and new moon, explained by a hypothesis of "biological tides."[12] Orthogonal analysis[17] of the data, however, fails to show significant synodic cycles. Conversely, other researchers have found insignificant relationships between lunar cycles and homicides,[13] suicides,[15] and psychiatric emergency room visits,[14] relying on Pearson χ^2 statistics, which are not particularly sensitive for detecting cyclic trends.[18] Hence, one is left with a less than adequate base for comparison.

The biological basis for synodic cycles in man is undefined. Several speculative hypotheses, including a theory of a tidal effect on body water,[12] have been offered. The most tenable hypotheses for human synodic cycles involve the timing of sexual cycles.[16,25,26]

This paper has demonstrated that circannual and synodic cycles do exist for a population of psychiatric inpatients, and the correlation with environmental cycles should stimulate interest in the area of infradian biological rhythms. Discussion of such phenomena is often met with skepticism,[27] but it does serve as a reminder of our interactiveness with our environment.[28]

Acknowledgments

The author would like to thank M. Little, MD, for encouragement and the staff of 4-North at Meriter-Madison General Hospital for providing data for analysis. The Madison office of the National Weather Service provided the meteorologic data. G.J.T. provided assistance in the preparation of this manuscript. Lutheran Brotherhood, through the Life and Health Insurance Medical Research Fund, MD/PhD Scholarship, provided partial financial support.

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Eligibility Contestants must be either a student enrolled at either of Wisconsin's medical schools or a resident actively training in Wisconsin.

Deadline Entries must be received by the *Wisconsin Medical Journal* no later than Jan. 31, 1989: PO BOX 1109, Madison, WI 53701.

Rules

- Topics must fall within the parameters of scientific medicine: clinical, case report, research or review.
- Papers must be original, unpublished, and credited to one author (although multiple authors may be listed).
- Length: 10 pages, typewritten, and double-spaced with 1-inch margins.
- Illustrations are encouraged, but must be included in the 10-page length limit.
- The Editorial Board of the *Wisconsin Medical Journal* serves as the panel of judges and has final authority.

Criteria

- *Scientific merit:* research methods, data analysis, subject or patient population selection, control of variables, and literature analysis.
- *Applicability:* usefulness of results to private practitioners, academicians or researchers.
- *Content:* depth of analysis, continuity of discussion supporting thesis, and feasibility of conclusions.
- *Innovation:* uniqueness of idea, creativity, improvement of existing techniques, discovery of new data, or advancement of basic understanding.
- *Writing:* clarity and organization.

Loss prevention

Risk management: an ounce of prevention

Richard G. Roberts, MD, JD
Madison

The AMA has identified four basic strategies to deal with the malpractice crisis: educate the public to reasonable expectations, strengthen the legal defense of malpractice claims, change the tort system, and improve the quality of medical practice.[1] While all four approaches are being addressed by a number of AMA and SMS initiatives, it is the fourth stratagem—the improvement of the quality of medical practice—that is most within the control of individual physicians. Risk management is an approach to medical practice that seeks to maximize the quality of care provided and the patient's satisfaction with that care. To better understand the need for a risk management approach, it is first necessary to examine the nature of the malpractice problem for the individual physician.

The problem

Wisconsin physicians have about a one-in-40,000 chance of being sued as the result of a single physician-patient encounter. Overall, approximately one out of 12 Wisconsin physicians become defendants in a malpractice action each year. The risk of being named in a suit depends greatly on specialty. For example, while actuaries predict that virtually every physician should expect to be named in at least one suit during a career, a newly trained obstetrician will average eight suits during a career.[2]

Various observers interpret this data differently. Some argue that physicians are named in too many suits—malpractice litigation drives up the cost of medical care and reduces access to care in spite of the fact that physicians prevail in 80% of the cases that go through a trial. Others contend that physicians are named in too few suits—more malpractice is committed than is recognized, litigated or compensated as evidenced by the fact that only one in six[3] to one in fifteen[4] negligently injured patients ever file a suit. For the individual physician, the number of malpractice claims is both too many and too few—one suit is too many given the emotional and financial trauma involved, but a handful of suits in a career (out of the thousands of patient encounters) is too few to permit the physician to predict, based on personal experience, those physician behaviors or patient factors that are likely to result in a claim.

Given the relative infrequency of lawsuits for any one physician, it would be easy for the individual to fall prey to the notion that a malpractice suit is a totally random event that one can do little to avoid—it is

simply a matter of waiting for the lightening to strike. While this may be true for a specific claim, in general it is possible to scan the various specialties and identify certain areas that pose the greatest liability risk for those physicians. Risk management takes account of these risks and enables the physician to practice reflective medicine—a style of practice that recognizes medicine's ability to do harm (as well as good), monitors the patient's progress and endeavors to keep the patient satisfied.

Risk management defined

Traditionally, risk management has been defined as an administrative effort to protect the financial assets of an organization. For the clinician, risk management is better defined as a style of practice that seeks to prevent patient injuries, malpractice claims and malpractice claims losses. It is important to emphasize that risk

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management is a style of practice, incorporated into one's daily practice, rather than a lecture, workshop or reading. Often confused with risk management, quality assurance is usually more concerned with actual problems that have been identified (rather than risks or potential problems) and it focuses less on the legal or financial implications. Both risk management and quality assurance use many of the same care evaluation techniques, such as incident reports, generic outcome screens and clinical indicators.

In late March 1989, the SMS is sponsoring a loss prevention seminar for you and your office staff. This comprehensive one-day program will provide valuable information to help protect you from a successful medical malpractice suit. Your staff can improve office procedures and patient communications by implementing the policies and examples given in the manual provided with the program. Additional registration information will be printed in upcoming issues of the *Medigram* and the February issue of the *WMJ*.

The anesthesia example

One of the better examples of the benefits of risk management techniques is in anesthesia. By careful analysis of the reasons for anesthetic mishaps, anesthesiologists have been able to develop practice recommendations (eg, oximetry) that have significantly lowered the incidence of anesthetic injuries, anesthesia malpractice claims and the malpractice premium category for anesthesiologists.[5] Anesthesia is admittedly one of the more straightforward areas of medicine, in which risks can be more readily identified and avoided.

These same principles, however, can be used to highlight the areas most likely to result in suits against—for instance—emergency medicine physicians (chest pain, febrile children, wound care, abdominal pain, and fractures of the spine or pelvis)[6] or family physicians (failure to diagnose cancer—especially breast, lung, and colon, birth-related claims, fractures, and drugs).[7]

Future articles will explore additional risk management issues and techniques. Although adopting a risk management approach to the practice of medicine will not provide absolute protection against a malpractice suit, it can reduce the risk of litigation. "An ounce of malpractice prevention is worth a ton of money."[8]

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AMA Awards

The Wisconsin physicians listed below recently earned AMA Physician's Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

October 1988

*Alston, James A., Waukesha
Bear, Laurel M., Milwaukee
*Blonsky, Stephen L., Green Bay
*Breadon, George E., Monroe
*Chennamaneni, Sampath K., Neillsville
*Djokovic, Jovan L., Janesville
*Falk, Victor S., Stoughton
Gehring, Charles J., Sheboygan Falls
*Gladieux, John R., Milwaukee
*Greene, Richard C., Green Bay
*Hayden, John W., La Crosse
*Junkerman, Charles L., Milwaukee
*Keane, Keith M., Appleton
*Kresge, Dean G., Stoughton
*Lemon, Richard A., Middleton
MacGorman, Linda R., Madison
*Mockert, Thomas, Sheboygan
*Peschke, Scott R., Plymouth
*Roggensack, George F., Madison
*Rose, Quentin F., Milwaukee
*Roth, Stephen J., Marshfield
*Sellers, Robert L., Superior
*Stewart, William A., Greenfield
*Weber, David R., Fond du Lac

Update on the Medical Mediation Panels

Editor's note: Last year, Randy Sproule, administrator of the Wisconsin Medical Mediation Panels in the Office of State Courts, provided readers of the *Wisconsin Medical Journal* with a report on the efficacy of the panels (*Wis Med J* 1988;1:28–29). The following is an update of the original report. See the Voice of the SMS editorial on page 8 for related observations.

Randy Sproule

The mediation panels have now been operational for more than two years, and more than 500 cases have been processed through the system. The following analysis and post-mediation tracking of the first 300 cases provide objective data upon which to evaluate the effectiveness of the panels (see Table 1).

Requests for mediation can be filed either prior to the commencement of a court action or within 15 days after the commencement of a court action. The requests which are filed after the commencement of a court action tend to involve the more complex, higher damage claims and to be cases wherein the plaintiff has already referred the matter to a medical expert. Because of the complexity of those cases and the prohibition against discovery prior to mediation (ie, the defendants' inability to depose the plaintiff or his or her experts), the defendants are usually unable to adequately evaluate the case prior to mediation. It is axiomatic that mediation is seldom constructive under those conditions. Mediation, therefore, would be expected to be more effective for those cases in which the request is filed prior to the commencement of a court action. An analysis of those cases confirms that expectation (see Table 2).

Table 1—The first 300 mediation cases

	No.	%
Settled at or shortly after mediation	24	8
Not settled, but not filed in court (statute of limitations expired)	55	18
Not settled, but not filed in court (statute of limitations not expired)	8	3
Not settled, filed in court (constructive mediation)	100	33
Not settled, filed in court (unconstructive mediation)	113	38

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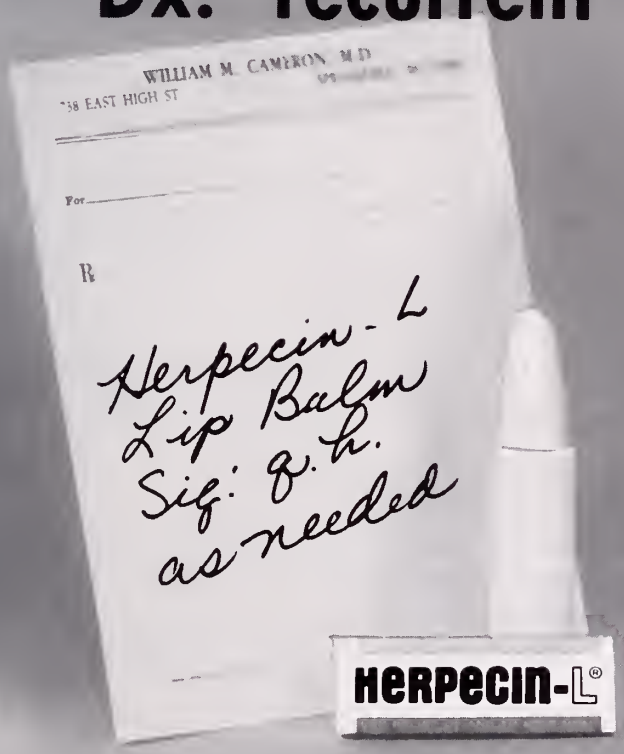
Dx: recurrent herpes labialis



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Continued

Similarly, because the relatively low damage cases tend to be less complex, better results from the mediation would be expected. The number of small damage claims that settled might have been higher, according to legal counsel, but for the statutory requirement that all settlements be reported to the Medical Examining Board (MEB) (see Table 3).

Early resolution of medical malpractice claims is beneficial to all participants and is said to be an important element in controlling medical malpractice insurance costs. Thus, it is encouraging to note that, under the present format, 26% of the malpractice claims that proceed through mediation are resolved within 90 days (the statutorily required time within which a mediation session must be held) and without any court action. That percentage might be higher if settlements of $10,000 or less were exempted from the MEB's reporting requirement.

Table 2—Mediation requested prior to court action

	#	%
Settled at mediation	16	13
Not settled, not filed in court (statute of limitations expired)	37	32
Not settled, not filed in court (statute of limitations not expired)	20	18
Not settled, filed in court (constructive mediation)	18	16
Not settled, filed in court (unconstructive mediation)	24	21
N = 115		

The present format, however, has actually increased the cost of litigation for the 38% of the cases which were not settled and for which mediation did not serve a constructive purpose (according to post-mediation surveys of plaintiff and defendant counsels). The primary reason given by legal counsel for the ineffectiveness of mediation in those cases is the prohibition against discovery. The number of cases in that category could be reduced by modifying the present format to allow the parties to determine the stage of the proceedings at which mediation should occur.

Table 3—Claim was for less than $25,000

	#	%
Settled	11	24
Not settled, not filed in court (statute of limitations expired)	12	26
Not settled, not filed in court (statute of limitations not expired)	4	9
Not settled, filed in court (constructive mediation)	9	19
Not settled, filed in court (unconstructive mediation)	10	22
N = 46		

In my opinion, the present mediation system, as indicated by the statistical analysis, is definitely a step in the right direction. The next challenge is to use the experience of the last two years to further increase the system's effectiveness.

Physicians desiring additional information on the mediation panels should contact either Cecilia Geis, policy analyst in the SMS Division of Medical Policy and Practice (PO Box 1109, Madison, WI 53701), or Randy Sproule in the Office of State Courts (110 E Main St, Suite 210, Madison, WI 53703).

Elderly patients and prescription instructions

At least 40% of the nation's elderly—and perhaps as many as 75%—do not follow prescription instructions correctly, according to the authors of *Drug and the Elderly: Clinic, Social, and Policy Perspectives*, which was recently published by Stanford University press.

The study's authors, who are with the University of California in San Francisco, say omission and under-use of medication, which can cause serious health problems, are the most common forms of noncompliance by elderly patients. The elderly, who make up 11% of the US population, use nearly one third of all prescription drugs.

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Medicare: questions and answers

Q. Would you summarize the 1989 Medicare participation agreement and what points should be considered before a physician decides whether to participate?

A. Physicians must decide by Dec 31 whether they will participate in Medicare for the coming year. All physicians should have received a letter from WPS–Medicare explaining the participation enrollment period, which will begin Jan 1, 1989, and the 1989 profile detailing the new approved amounts and Maximum Allowable Actual Charges (MAACs).

The SMS recommends that physicians review their practices and keep in mind the following before making a final decision on whether to participate in the program:

- the portion of patients who are Medicare beneficiaries;
- the current percentage of patients and dollars taken on assignment;
- the difference between the 1989 Medicare-allowed amount for participating physicians and the non-participating physician's 1989 MAAC; and
- the physician's philosophical stance regarding the participation agreement.

The following are some key considerations regarding participation:

- Participating physicians must accept assignment for all patients.
- Participating physicians must accept the Medicare-allowed amount as payment in full, and may not collect any additional money from the patient except for coinsurance and deductibles.
- Eighty percent of the allowed amount is paid directly to the physician, after the deductible is met, not to the patient.
- There are no limits on actual physician fees, which allows participating physicians to increase their customary charge profile.
- The participating physician's office completes the Medicare claim forms and submits them to Medicare.
- Medicare has been instructed to begin forwarding claims from participating physicians directly to supplemental insurance companies, which will be required to make payment for covered services directly to the physician. (Due to logistical problems, however, this will probably not take effect until later in 1989.)
- Medicare must process "clean" claims (those needing no research) in 18 days, or interest will accrue.
- Directories of participating physicians will be furnished free of charge to all beneficiaries who request them.
- The Explanation of Medicare Benefits (EOMB), mailed with all payments to beneficiaries for non-assigned claims, will include a message reminding beneficiaries of the participation program.
- Hospital personnel referring a Medicare patient to a non-participating physician for further care on an outpatient basis must inform the patient of the participating program and identify a qualified participating physician.

The following are key considerations regarding non-participation:

- Non-participating physicians may elect to accept assignment on a case-by-case basis.
- Non-participating physicians' fees are limited by their MAACs. If Medicare determines through its quarterly monitoring process that a physician's fees exceed the MAAC limitation, he or she may face significant fines if the charges are not modified in a timely manner.
- Non-participating physicians can continue to charge patients the full balance between their MAACs and the Medicare payment.
- The Medicare adjusted prevailing charge is 5% less than that of the participating physician.
- Medicare pays 80% of the approved amount, after the deductible is met, to the patient, not to the physician.
- Payment for claims takes seven days longer than for assigned claims.
- When performing surgery, non-participating physicians who do not accept assignment must disclose to the patient prior to the procedure the estimated physician's actual charge or MAAC, the Medicare-allowed amount, and the patient's balance, including the co-payment.

1989 Profile information

The 1989 profile contains valuable information describing MAACs and Medicare-approved amounts. To determine the amount Medicare will approve for a service, participating physicians should compare their actual charge to the information under the *Customary* and *Par Prevailing* columns. Medicare will approve the lower amount. Non-participating physicians should compare the information in the *Customary, Non-par Prevailing* and the *MAAC* columns. Medicare will approve the lowest amount.

Physicians should use the MAAC listed in the *Current MAAC* column. Physicians who question the accuracy of the MAAC listed, should contact WPS–Medicare, Customer Service, immediately and provide written information on why the MAACs are suspect and, if possible, provide data to substantiate their claim.

The customary and prevailing charges have been updated, and will go into effect for services provided on Jan 1 through Dec 31, 1989. The Medical Economic Index (MEI) has

Continued on page 30

ARMY RESERVE OFFERS NEW FINANCIAL INCENTIVES FOR RESIDENTS IN ANESTHESIOLOGY AND SURGICAL SPECIALTIES

If you are a resident in Anesthesiology, Orthopaedic Surgery, or General Surgery including Neurosurgery, Colon/Rectal, Cardiac/Thoracic, Pediatric, Peripheral/Vascular and Plastic Surgery, the Army Reserve has a new and exciting opportunity for you. The New Specialized Training Assistance Program will provide you with financial incentives while you're training in one of these specialties.

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Continued from page 28
increased prevailing charges by 3% for primary care services and 1% for other physician services.

Medicare will provide a 5% bonus for services rendered in a Health Manpower Shortage Area (HMSA) after Jan 1, 1989. This bonus payment will be made in a lump-sum check paid directly to the physician—most likely on a quarterly basis.

Special changes

Radiology and anesthesiology. A new fee schedule for radiology services will go into effect on Jan 1, 1989; it will apply to board-certified or eligible radiologists and to physicians whose radiology billings account for 50% of their Medicare charges. Radiology services rendered by physicians who do not meet these criteria will continue to be paid under the current rules. Physicians falling under the new fee schedule should be notified by WPS–Medicare.

A new relative value scale (RVS) is in store for anesthesiologists beginning March 1, 1989; the information on the 1989 profile uses the old RVS. The details of this change are not currently available, and physicians should watch for additional information from WPS–Medicare regarding this change. Beginning Jan 1, certified registered nurse anesthetists (CRNAs) will be paid under their own fee schedule, and CRNA payment will be made on an assigned basis only. CRNAs should apply for their own Medicare number by Jan 1.

Reducing diabetic retinopathy

Diabetic retinopathy, the major cause of blindness in diabetics, appears to be strongly related to poor control of blood sugar levels, according to a study by University of Wisconsin Medical School researchers published in a recent issue of *JAMA*. The study's findings suggest that even a modest improvement of blood sugar control "may reduce the incidence of proliferative retinopathy significantly," the authors say.

Physician help requested in anti-tobacco campaign

This month marks the beginning of the American Cancer Society's Tobacco Free Young Wisconsin campaign. The American Cancer Society, American Heart Association, and American Lung Association have joined forces to secure a tobacco-free future for today's children. They have targeted this year's first grade students—the class of 2000—as Smoke-Free Young Americans.

The Tobacco-Free Wisconsin committee is asking help from physicians in achieving this goal. Pediatricians, family practice physicians, and obstetricians will be targeted because of their ability to influence the habits of young people.

The Wisconsin Legislature has made tobacco sales to minors illegal as of this month. Yet tobacco is easily accessible in vending machines, through distribution of tobacco samples on public property, and from local stores. Physicians can help change this by writing to their representatives to encourage passage of tougher restrictions on the availability of tobacco products.

The American Cancer Society has a variety of helpful materials to support smoking prevention efforts. In particular, the American Cancer Society is providing physicians with free prescription pads to prescribe tobacco-free behavior for their patients. They also provide Fresh Start, a smoking cessation program that fits the needs of both adolescents and their parents.

The American Cancer Society has health education staff members who will help physicians adapt materials to the needs of their clinics. For more information, or a list of materials, contact your local American Cancer Society office of the Wisconsin division office at: 611 N Sherman Ave, Madison, WI 53704.

Sunscreens linked to vitamin D depletion

Elderly people who are long-term users of the sunscreen agent PABA may be increasing their susceptibility to vitamin D depletion, according to a preliminary study in the December 1988 issue of *Archives of Dermatology*. The authors say their results should not preclude the use of sunscreens in skin cancer patients, but note that their work "provides evidence for a hitherto unsuspected consequence of the overlap between the action spectrum of vitamin D formation and the absorption spectrum of PABA."

Electronic information: Part II

William A. Yasnoff, MD, PhD
American Medical Association

The second of two parts.

Physicians have a continual need for information. This is a natural consequence of the overwhelming and increasing quantity of biomedical knowledge required for the practice of medicine today. Traditional sources of this information include colleagues, books, and journals, both in the hospital and office environment. Thanks in part to the decreasing cost of computer equipment, a new, low-cost, more up-to-date source of information is now readily available to physicians: electronic information. This information may often be more convenient, more current, and more relevant than traditional sources. This article provides some examples of the types of electronic information which can be useful in addressing physician information needs. It focuses on AMA/NET, the AMA-sponsored nationwide medical information network which is now available to physicians throughout the United States.

Current awareness of specific medical topics

Physicians often need to obtain the latest information in a particular medical subject area: a particular disease state, subspecialty, or topic of current interest. Traditional sources for such information are the many available medical news publications, scientific meetings, and current medical literature. It is often difficult, however, to sort through the plethora of available information to find the specific items of interest.

This is another area where electronic information can be helpful. AMA/NET provides a number of services which directly address the need for current medical information. One of the most useful of these is the Associated Press Medical News Service, which provides up to the minute reports of medical news transmitted on the Associated Press newswire. These stories are updated continuously, and are available on both a chronologic basis and by subject area. Medical news stories are thus available almost immediately on AMA/NET.

Another useful source of current information is the literature update by specialty. This provides, via a search of EMPIRES, the most recent literature in a given specialty area. The social and economic aspects of medicine (SEAM) database, which is maintained by the AMA, is another useful source of information. This database references selected articles in both medical and non-medical literature which pertain to social, ethical, and legal issues related to the practice of medicine. Topics of current controversy are often represented in this database.

An additional source of current information in AMA/NET is the public health information services. The Centers for Disease Control, the Surgeon General's office and the FDA all provide current information on AMA/NET. For example, the full text of the *Weekly Morbidity and Mortality Report* from the Centers for Disease Control is available.

These sources of information, combined with the literature searching capabilities, make it easy to obtain the latest information on any particular topic of medical interest.

Reference information

Reference information needed by physicians is traditionally available through a nearby medical library. An example of this type of information on AMA/NET is the CPT procedure codes. The CPT codes are used for reporting most medical procedures to third-party payors. This can be useful when such a code is needed and the printed reference is not available.

Continuing medical education

Continuing medical education has become increasingly important as the rapid pace of medical discovery leads to proliferation of new knowledge and changes in previous concepts. The traditional methods for obtaining continuing education involve attending meetings, often by traveling to a remote location, or reading material followed by subsequent self-administered examinations. More recently, CME has been available in videotape form.

Electronic information has a role to play in CME, too. In particular, computers are well-suited for patient simulation exercises wherein the effects of many different patient management scenarios can be explored safely and easily. AMA/NET provides access to a number of such simulations which have been developed at the Massachusetts General Hospital. Examples of these include abdominal pain, diabetic ketoacidosis, and hypertensive emergencies. With these programs, access to electronic information can provide new opportunities in continuing medical education.

Communications with colleagues

Traditionally, physicians' communication with their colleagues has consisted of scheduled meetings, either local or remote, chance meetings in the hallway ("curbside consults"), telephone communication (which is very inefficient), and communication by letter, which is frequently used to report the results of patient referrals.

AMA/NET provides access to a new form of electronic communication: electronic mail. With electronic mail, messages are sent immediately, but stored so that each person sends and receives information at their convenience. This greatly simplifies written communication with colleagues since sender and receiver need not be simultaneously available.

Continued on page 35

YOCON®
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Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

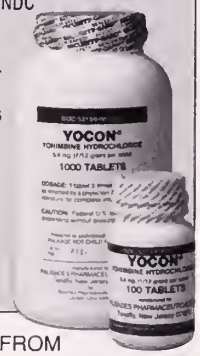
Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day. to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.



References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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BRIEF SUMMARY

CONTRAINDICATIONS
There are no known contraindications to the use of sucralfate.

PRECAUTIONS
Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS
Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE
There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION
The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

HOW SUPPLIED
CARAFATE (sucralfate) 1-gm tablets are supplied in bottles of 100 (NDC 0088-1712-47) and in Unit Dose Identification Paks of 100 (NDC 0088-1712-49). Light pink scored oblong tablets are embossed with CARAFATE on one side and 1712 bracketed by C's on the other. Issued 1/87

Reference:

1. Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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Please see brief summary of prescribing information, and reference on adjacent page.

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Summary.
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Indication: Lower respiratory infections, including pneumonia, caused by *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Streptococcus pyogenes* (group A β-hemolytic streptococci).
Contraindication: Known allergy to cephalosporins
Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN SENSITIVE PATIENTS PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS
Administer cautiously to allergic patients
Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics It must be considered in differential diagnosis of antibiotic-associated diarrhea Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis
Precautions:
- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms
- Positive direct Coombs' tests have been reported during treatment with cephalosporins
- Ceclor should be administered with caution in the presence of markedly impaired renal function Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old Ceclor penetrates mother's milk Exercise caution in prescribing for these patients

Adverse Reactions: (percentage of patients)
Therapy-related adverse reactions are uncommon Those reported include
- Gastrointestinal (mostly diarrhea) 2 5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] and toxic epidermal necrolysis or the above skin manifestations accompanied by arthritis/arthralgia, and frequently, fever) 1 5%, usually subside within a few days after cessation of therapy Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor No serious sequelae have been reported Antihistamines and corticosteroids appear to enhance resolution of the syndrome
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported
- Other eosinophilia, 2%, genital pruritus or vaginitis, less than 1%, and, rarely, thrombocytopenia

Abnormalities in laboratory results of uncertain etiology
- Slight elevations in hepatic enzymes
- Transient fluctuations in leukocyte count (especially in infants and children)
- Abnormal urinalysis, elevations in BUN or serum creatinine
- Positive direct Coombs' test
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest® tablets but not with Tes-Tape® (glucose enzymatic test strip, Lilly).

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Additional information available from
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Continued from page 31

Thus, electronic mail can provide the speed of the telephone without the associated inconvenience and delay, and represents a cure for chronic telephone tag.

Electronic communication can also take the form of an electronic bulletin board, allowing announcements to be made which are immediately accessible to system users.

Non-medical information

Physicians also need information that is not medically related. Obviously, there are a multitude of traditional sources for all types of information (newspapers, magazines, newsletters and television). Electronic information provides a supplement to these sources.

In particular, AMA/NET provides on-line access to the Official Airline Guide, which is very useful in planning travel, as well as various types of financial information. The latter includes business press releases, financial and commodity news, tax notes, and stock and commodity quotations. It is also possible to obtain information about investments managed by AMA Advisers.

Conclusions

Electronic access to information provides an important adjunct to traditional methods. In some cases electronic information provides capabilities which are not otherwise available. In the future, new forms of electronic information will be available. One such form is the "interactive reference," which provides reference information tailored to an individual patient's situation. With such a reference, the process of extracting information relative to a specific patient from a number of sources is performed automatically providing both convenience and time savings.

This report has described some of the information sources and capabilities available on AMA/NET. It is clear that physician access to electronic information greatly expands, but does not replace, traditional information access methods.

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SMS seeks fairer Medicaid reimbursement rates

The Department of Health and Social Services (DHSS) must address the problem of "increasingly inadequate Medicaid reimbursement rates before the state reaches a crisis in lack of access to care by Medicaid recipients as a result of provider withdrawals from the program," according to Thomas L. Adams, secretary and general manager of the SMS. Adams made his remarks in a recent letter to Patricia Goodrich, DHSS secretary, in response to preliminary deliberations on the 1989–90 budget.

He pointed out that, while increases in reimbursement rates to physicians have risen between 0.5% and 2% annually from 1984 to 1986 and were frozen from 1986 to 1988, malpractice insurance premiums alone increased by 200%. "At this point," Adams said, "for most physicians' services, Medicaid pays less than 50% of the normal charge." And in many areas of the state this "discount" is even greater.

In northern Wisconsin, for example, one clinic reports being paid only 37% of its normal charge for routine prenatal obstetrical care and delivery. In fact, for some physicians, especially those providing routine obstetrical care, the Medicaid payment scarcely covers the cost of malpractice insurance. The clinic in northern Wisconsin, with 17% to 20% of its patient population receiving Medicaid benefits, is seriously examining its financial ability to stay in the Medicaid program, Adams said.

Other administrative and policy problems have contributed to physician dissatisfaction with Medicaid, Adams said, such as delays in claims payments and the implementation of a new policy on crossover claims for Medicare beneficiaries covered by Medicaid, which severely penalizes rural health care providers.

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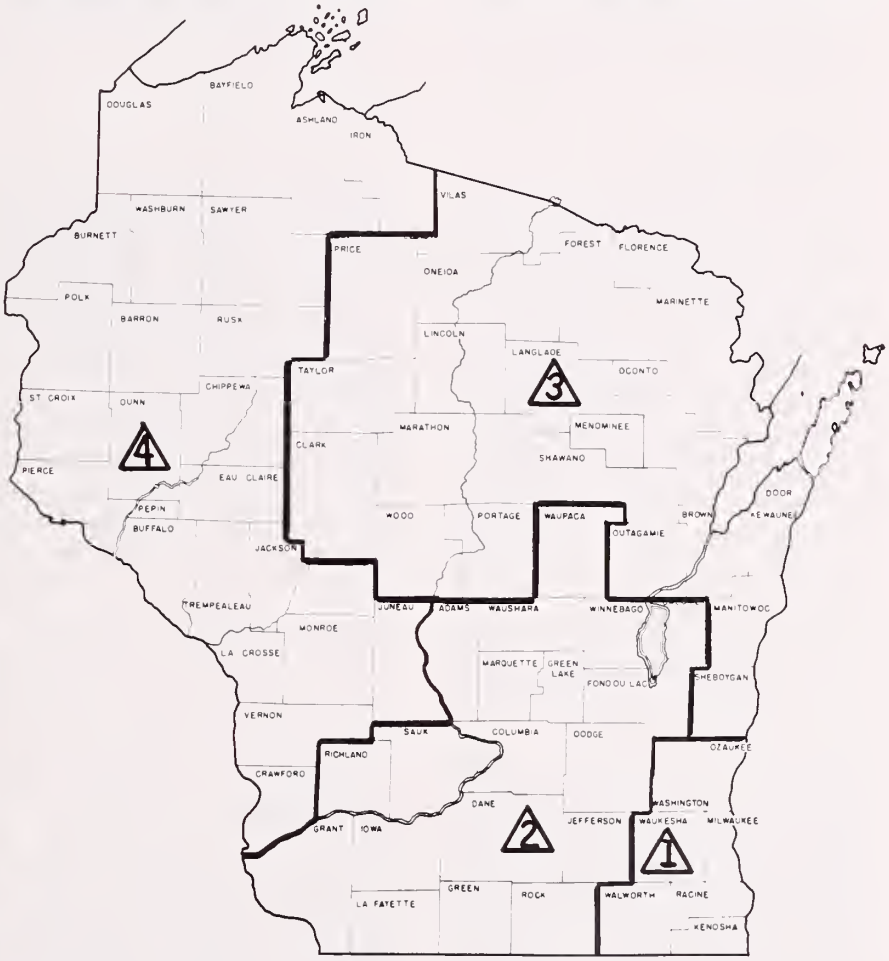
New SMS field representative hired; districts redrawn

Larry Martin recently joined the SMS staff as a field representative, replacing Deborah Bowen Wilke, who has been named director of communications for the Society. Martin, who most recently worked as a political organizer in the state, also was governmental affairs coordinator for Cook and Franke in Milwuakee.

With the appointment of Martin, the lines of the four SMS districts have been redrawn to conform generally with board distrcit boundaries (see map). Lois Riley continues to be responsible for District 1, which includes the southeastern part of the state; Paul Markowski will take over District 2, covering central Wisconsin; Larry Martin will assume responsibility for District 3, in the northeastern section; and Tom Stobig will continue to cover District 4, which includes the counties in the far west and northwest areas of the state.



Larry Martin

SMS has FAX

Persons wishing to communicate with the SMS via FAX machines can now do so at: 608-257-3741. The SMS staff would appreciate receiving FAX numbers from those who would like to receive information from the SMS via FAX. Contact: Doug Turecek, State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701; 1-800-362-9080 or 608-257-6781.

1989 ANNUAL MEETING • STATE MEDICAL SOCIETY OF WISCONSIN
AT THE MECCA, MILWAUKEE (Hyatt Hotel) • APRIL 13–15

Board creates subscription fees for dues-exempt members

The SMS Board of Directors has recognized the contributions of the Society's retired and life members by exempting them from membership dues. These dues-exempt members have enjoyed all the benefits of membership, continuing to receive the Society's publications—the *Wisconsin Medical Journal* and the *Medigram*. Recently, however, faced with rising costs for providing all members with these publications, the Board voted to implement a $40 publications fee for retired and life members. The fee, which was shown on the 1989 dues statement, is voluntary—physicians who decline to subscribe will continue as SMS members in good standing, they simply will not receive the *WMJ* or *Medigram*.

Retired and life members of the Society have grown in number over the years and now comprise about 12% of the total membership. At the same time, both direct and indirect costs for producing SMS publications has continued to increase. Many other medical societies, including the AMA, have tightened their policies on dues exemptions and some have begun charging dues-exempt members a nominal membership or subscription fee. The Board, after much deliberation and discussion, has decided to implement a similar policy.

Obituaries

Fred C. Prehn, MD, 90, of Wausau, died Oct 20, 1988, in Wausau. Born Dec 15, 1897, in Marathon, Dr Prehn graduated from the University of Illinois Medical School and served his internship at St Luke's Hospital in Chicago. He was licensed to practice medicine in Wisconsin in 1926 and practiced in Wausau for more than 50 years, retiring in 1972. He was a member of the American Academy of Family Physicians, a member and past president of the Marathon County Medical Society, and a member of the SMS and AMA. Surviving are his widow, Esther, and a daughter, Sally Leininger.

Charles L. Brillman, MD, 80, of Milwaukee, died Oct 28, 1988, in Milwaukee. Born Feb 5, 1908, in Brooklyn, NY, Dr Brillman graduated from the University of Wisconsin Medical School, Madison, and served his internship at Mount Sinai Hospital in Milwaukee. He was a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving is his son, Michael P. Brillman, of Milwaukee.

William F. Donlin, MD, 80, of Belleville, died Oct 20, 1988, in New Glarus. Born June 14, 1908, in Madison, Dr Donlin graduated from the University of Wisconsin Medical School, Madison, and served his internship at St Mary's Hospital, Madison. Dr Donlin practiced medicine in Belleville for 50 years. He was a member of the American Academy of Family Physicians, the Dane County Medical Society, the SMS, and the AMA. Surviving are his widow, Dorothy; three sons, Michael T. (Josie), of Dubuque, Iowa; W. Patrick (Nancy), of North Haven, Conn, Joseph F. (Dianne), of Belleville; four grandsons; five granddaughters and three great grandchildren.

R. Sanford Cook, MD, 73, of De Land, Fla, formerly of Beaver Dam, died Oct 15, 1988, in De Land. Born Feb 8, 1915, in Frankfurt, Ind, Dr Cook graduated from the University of Iowa Medical School and served his residency in radiology at Iowa City, Iowa. Dr Cook served in the United States Army Medical Corps from 1943 to 1946. He practiced in Beaver Dam until his retirement in 1977. He was a member of the American College of Radiology, the Dodge County Medical Society, the SMS, and the AMA. Surviving are his widow, Marion; one son, Cameron, of Orlando Fla; and two step-sons, Richard Imming, of Winter Springs, Fla, and Thomas Imming, of Cincinnati, Ohio.

Norbert A. McGreane, MD, 78, of Darlington, died Oct 19, 1988, in Darlington. Born May 3, 1910, in Darlington, Dr McGreane graduated from the University of Louisville School of Medicine, and served an internship at St Joseph's Hospital in St Paul, Minn. He began his medical practice in Darlington in 1936 and practiced there until his retirement in 1982. He was a member of the LaFayette County Medical Society, the SMS, and the AMA. Surviving are his widow, Naida; a son, Thomas of Lake Zurich, Ill, and four grandchildren.

County society news

Outagamie. Thirteen members were present at the October meeting of the society, held in Appleton. MDs James G.B. Buss and Peter V. Podlusky presented a paper entitled *Management of cervical carcinoma.* New members accepted to membership are MDs James G. B. Buss, Errol R. Springer, and Gary K. Ludwig, all of Appleton.

Rusk. At the September meeting of the society, guest speakers were Harvey Golden, MD, associate professor of medicine, Rush Medical College, who spoke on "Consideration in the management of concomitant arthritis and hypertension," and Carolyn Chatterton spoke on the "African safari."

Fond du Lac. Jacqueline Dungar, Appleton, historian for the SMS Auxiliary, and William J. Listwan, MD, West Bend, member of the SMS Board of Directors, were the guest speakers at the October meeting of the society. They spoke on "The Personal tragedy of medical liability: Effects on physician and family."

Kenosha. One of the guest speakers at the October meeting of the society was Pat Moran, mayor of Kenosha. Moran discussed the city budget, political form, and history of the political structure in Kenosha. He also presented his views about where Kenosha should be going in the future. A question-and-answer period followed, during which several issues were addressed, including Kenosha's bond rating and relative debt comparison to other communities, Health Department Home Inspections Program and marina timetable.

SMS President elect William L. Treacy, MD, Milwaukee, also spoke on current activities at SMS including the PIC Wisconsin and WHICLIP program. Ernesto Buencamino, MD, secretary of KCMS, announced that through Kevin J. Fullin, MD, the county medical society had been approached to help with the local Prevention of Battered Women and Domestic Violence program. Dr Fullin has been appointed to an ad hoc committee to research and investigate whether KCMS can be of any assistance to the program. New officers for 1989 were elected: Ernesto E. Buencamino,MD, president elect; Richardo M. Rustia, MD, secretary; Clifton E. Peterson, MD, delegate; Meredith C. Clubb, MD, delegate, and Roman Bilak, MD, alternate delegate.

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Specialty society news

J. Frank Wilson, MD,* of Milwaukee, has been elected secretary of the **American Society for Therapeutic Radiology and Oncology** for 1988–1989. Other officers elected: MDs Stanley E. Order, of Baltimore, MD, president; Carl R. Bogardus, of Oklahoma City, OK, president elect; Lawrence W. Davis, of Bronx, NY, chairman, board of directors; and R. Lawrence White, of Falls Church, VA, treasurer.

The American Academy of Ophthalmology has elected new officers for 1989: MDs Robert D. Reinecke, of Philadelphia, president, and George E. Garcia, of Boston, president elect. Elected to the 1989 board of directors are MDs Claude L. Cowan Jr, of Washington, DC, Oliver H. Dabezies, of New Orleans, Edward K. Isbey Jr, of Asheville, NC; and Marilyn T. Miller, of Chicago, directors-at-large.

AIDS estimates

Total AIDS cases in Wisconsin will increase from 390 as of November 1988 to between 2,654 and 3,732 during the same month in 1992, according to a study recently released by the AIDS/HIV Program of the Department of Health and Social Services. The program's estimates are based on the combined data from two models, one extrapolated from recently revised national projections and the other based on estimates of the case doubling interval in Wisconsin.

CES Foundation
of the State Medical Society of Wisconsin

The persons and organizations named below made contributions to the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin during the month of October, 1988. The Foundation and the Society salute their generosity.

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A call for photographs

The *Wisconsin Medical Journal* and the SMS Charitable, Educational, and Scientific Foundation are joining forces in an effort to build a photographic library of medicine in Wisconsin. Donations of current or historical photos relating to medicine—persons or places, equipment or events—are welcome and tax deductible. All donated photos will become the property of the Fort Crawford Medical Museum, which is owned and operated by the foundation, and may be used to illustrate future issues of the *Wisconsin Medical Journal.* Send your photos to: Thomas L. Adams, State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701-1109.

Physicians Exchange

Minneapolis, Minnesota. Two (2) positions available for BE/BC OB/GYNs at Bloomington-Lake Clinic, a multi-specialty clinic, with two (2) locations and a third clinic opening in Eagan in November. Competitive salary and benefits provided. Please contact: Scott M. Lindblom, Physician Recruiter, Fairvew Physician & Clinic Services, 2312 South 6th St, Minneapolis, MN 55454 or call 612-371-6235; toll-free is 1-800-328-4661, ext 6235. 12/88;1/89

Psychiatrist/Chemical Dependency Psychiatrist interested in chemical dependency needed to join 220-physician multi-specialty group with adjacent 447-bed hospital. Position includes inpatient services for Chemical Dependency Unit with full range of outpatient chemical dependency services available. Behavioral Medical Department is presently staffed by seven psychiatrists, one child/adolescent psychiatrist and two psychologists. New clinic building recently completed. Gundersen Clinic, Ltd, is located in La Crosse, Wisconsin, a progressive community of 50,000 built along the shores of the Mississippi River amid scenic bluffs, the city offers excellent recreational facilities. Numerous educational and cultural opportunities are provided by an expanding university with undergraduate and graduate degree programs, and a private liberal arts college. Excellent pension program, no investment required. Service organization. Write: Philip J. Dahlberg, MD, Chairman, Personnel Committee, Gundersen Clinic, Ltd, 1836 South Ave, La Crosse, WI 54601. An Equal Opportunity Employer. 1/89

General surgeon to join a 12-physician multi-specialty group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 12tfn/88

RATES: 50¢ per word, with a minimum charge of $20.00 per ad. BOXED AD RATES: $25.00 per column inch. *All ads must be prepaid.*

DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg,* copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Physician's Assistant. Milwaukee Medical Clinic is seeking a physician's assistant for a collaborative practice with two physicians in the Internal Medicine Department. Certified candidates with two-plus years of experience are encouraged to send a resume to Don Ritt, Director of Human Resources. Milwaukee Medical Clinic is a multi-specialty, physician-owned, out-patient clinic with 80-plus physicians and over 600 employees. In 20 years of providing quality care, the clinic has developed a solid reputation in the community. Continued growth has led to expansion of services, including the addition of satellite clinics and walk-in clinics. The successful candidate for this physician's assistant position will join two internists expanding their practices at our main site on the north side of Milwaukee. The clinic currently employs several physician's assistants who have established practices and are proven contributors to the clinic's success. The city of Milwaukee is alive and growing! Professional people are moving here to support the growth of small and medium-sized technical industries. Our larger manufacturers are regaining strength, and yes, the breweries continue their proud traditions. If you are interested in joining a growing Clinic in a growing metropolitan area, send your resume, indicating salary needs, to: Drina M. Reed, Human Resources Department, Milwaukee Medical Clinic, 3003 W. Good Hope Road, Milwaukee, WI 53217. Milwaukee Medical Clinic is an equal opportunity employer, M/F/V/H 1-2/89

Family Practice (BC/BE). Excellent opportunity to join a very busy, five-physician family practice group in south central Wisconsin. Long established group. City of 15,000 located on lake in excellent recreational area. Guaranteed first year salary with opportunity for ownership after one year. Competitive fringe benefits. Contact C. Burchardt, Medical Associates of Beaver Dam SC, 1200 N. Center St, Beaver Dam, WI 53916; ph 414-887-7101. p1-3/89

Family Practitioner to associate with a highly successful two physician (one physician near retirement) rural family health center with an excellent support staff and unlimited potential. Complete fee-for-service practice with excellent hospitals and specialty support only minutes away. Guaranteed salary, incentives and benefits tailored to fit your needs. Located 15 minutes from a major metropolitan area and 30 minutes from the joys of Door County. Interested physicians please contact: J. C. Majeski, Clinic Mgr, Luxemburg Medical Clinic, PO Box C, Luxemburg, WI 54217; ph 414-845-2351. p11-12/88;1/89

Physicians wanted to join multi-specialty clinic in central Wisconsin. Family/general practitioner, internal medicine/cardiologist, radiologist, and OB/GYN specialist. Generous salary and fringe benefits. If interested, please contact Rod McLean, Administrator, Neillsville Clinic, SC, 216 Sunset Place, Neillsville, WI 54456; ph 715/743-3231. p1-3/89

West Bend, Wisconsin. Seeking emergency department director and full-time physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation, malpractice insurance provided and benefit package provided. Contact: Emergency Consultants, Inc, 2240 S. Airport Road, Room 36, Traverse City, MI 49684; ph 1-800-253-1795 or in Michigan 1-800-632-3496. p1/89

Two full-time emergency physicians, board-certified or eligible, are needed to staff Level II Emergency Department with annual volume of 30,000. Residents rotate through department making excellent teaching opportunity. Compensation package exceeds 120,000/yr. Flexible scheduling, 36 hr/wk, 1656 hr/yr. Partnership available in one year. Contact Sunil Ahuja, MD, FACEP, Medical Director, Emergency Services, Sinai Samaritan Medical Center, 2000 W Kilbourn Ave, Milwaukee, WI 53233; ph 414-937-5989. 12/88;1-2/89

West Bend, Wisconsin, General Clinic, a 20-physician multispecialty group is seeking additional B/C, B/E physicians in **Family Practice, Pediatrics, OB/GYN, Internal Medicine, Urology, Dermatology,** and **ENT.** First-year salary and benefits guaranteed. Corporate association after one year. Located in a family-oriented, economically strong small city surrounded by four-season recreational and scenic Kettle Moraine area 30 miles north of metropolitan Milwaukee. Contact Hans W. Schmelzling, Administrator, 279 S 17th Ave, West Bend, WI 53095; ph 414/338-1123. 7tfn/87

Orthopaedic Surgeon. Board-certified/eligible to join two well established orthopaedists in an actively expanding multispecialty southern Wisconsin clinic. New medical facility in a growing community of 50,000+. Modern "state of the art" hospital. Send CV to James Lube, Administrator, Janesville Medical Center, Ltd, 3524 East Milwaukee St, Janesville, WI 53546 or call 608-756-7122. 11-12/88;1/89

Come join me. Ambulatory care. Orange County, California. Good Hours. Great wages. Excellent amenities. Gerald J. Derus: 714-496-8641. 11tfn/88

Physicians Exchange

continued

Lake Winnebago, Wisconsin area. Seeking director, full-time and part-time emergency physicians for low-volume 60-bed hospital. Attractive compensation, full malpractice insurance coverage and benefit package available. Contact: Emergency Consultants, Inc, 2240 S. Airport Road, Room 36, Traverse City, MI 49684; 1-800-253-1795 in Michigan 1-800-632-3496. p1/89

Obstetrics and Gynecology. Confidence in this opportunity's success is high, and is reflected by the income guaranteed. Northeastern Midwest; 100,000 in metro area. Dynamic 400 plus bed hospital with excellent step-up Level I nursery, state-of-the-art technological support, Level III nursery within 20 minutes. Complete package includes malpractice and full practice management services. Only board-certified/board eligible specialists. Respond in confidence to: Jim Huber, Fox Hill Associates, 250 Regency Court, Waukesha, WI 53186, or call collect 414-785-6500. 12/88;1/89

Minneapolis. Multiple opportunities available for Obstetricians at Riverside Medical Center. Option to work with midwives and be active in a teaching program for OB/GYN and Family Practice residents. Competitive salary and benefit package. Send curriculum vitae to: Scott M. Lindblom, Physician Recruiter, Fairview Physician and Clinic Services, 2312 South 6th St, Minneapolis, MN 55454, or call 612-371-6235; toll-free 1-800-328-4661, ext 6235. 12/88;1/89

Immediate opening for family practitioner to join busy 13-physician multispecialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send curriculum vitae or inquires to: Lake Regional Clinic, PC, PO Box 1100, Devils Lake, ND 58301, Attn: Joel Rotvold or call collect at 701-662-2157 for further information. 11-12/88;1/89

Aspen Medical Group, an independent, multi-specialty group with eight clinic locations in the Minneapolis/Saint Paul metropolitan area, seeks associates in Family Practice, Internal Medicine, Obstetrics/Gynecology, Orthopedic Surgery. Competitive earnings, excellent benefits, reasonable call and clinic responsibilities. Reply: Maureen Reed, MD, Aspen Medical Group, 1295 Bandana Blvd, North, Suite 310, Saint Paul, MN 55108 or call 612-642-2707. 12/88;1-2/89

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700. 12tfn/88

Family practice opportunities in a group setting. Located in a family oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, President & CEO, Clintonville Community Hospital, 35 North Anne St, Clintonville, WI 54929; ph 715-823-3121. p12/88;1-5/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Wisconsin—Emergency Medicine. Excellent clinical opportunities are currently available with Spectrum throughout Wisconsin. Low to moderate volume emergency departments. Varying schedules available. Guaranteed competitive rate of reimbursement, high-limit occurrence malpractice insurance coverage, Wisconsin Compensation Fund. For additional information, contact Ruth Sutterer, Spectrum Emergency Care, PO Box 27352, St. Louis, MO 63141; ph 1-800-325-3982, extension 3029. 11-12/88;1/89

California. Outstanding practice opportunities in OB/GYN, allergy, family practice, pediatrics, internal medicine, dermatology, pulmonary disease, invasive cardiology, neurology, orthopaedic surgery, urology and neurosurgery. As retained consultants to quality hospitals, group practices, and HMOs in northern and southern California, we can discuss each practice in detail. Please call or send a CV for additional information. Confidentiality is assured. Contact Ken Baker at 415-981-7424 (collect). Physician Search Group, 50 California St, Suite 400, San Francisco, CA 94111. p1/89

Northern Wisconsin
Family Practice physician to join multispecialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Dermatology—Brainerd, Minnesota. Join 20 MD multi-specialty clinic. No capitation. No start-up costs. Two hours from Minneapolis, Beautiful lakes and trees; ideal for families. Call collect/write Curtis Nielsen 218-829-0354 or 4901. PO Box 524, Brainerd, MN 56401. p1-2/89

Family Practice. Central Wisconsin physician retiring. Excellent recreational/high quality of life area. Guaranteed salary and comprehensive benefits, modern clinic facility, support staff and backup provided. Ownership opportunity. Contact J. M. Bolton, Riverview Hospital Association, PO Box 8080, Wisconsin Rapids, WI 54495-8080 or call 715-421-7494. p1/89

NEW PHYSICIANS FOR WISCONSIN
is seeking
- Family Physicians
- Pediatricians
- Orthopedic Surgeons
- Internists

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7-12/88;1-6/89

Wisconsin. BC/BE Pediatrician to join busy 5-member pediatric department in 50-member multi-specialty group, adjacent to only hospital in city. Salary one year leading to full partnership. City of 55,000 in pleasant southern Wisconsin. Send CV to: Patrick Meyer, MD, Janesville Riverview Clinic, Ltd, 580 North Washington Ave, Janesville, Wisconsin 53545; ph 608/755-3500. p1/89

Physicians Exchange

continued

BC/BE General Internist to join 26-MD multispecialty group with four internists, one nephrologist and one gastroenterologist. Top salary first year, full incentive thereafter. Central Wisconsin university town with drawing area of 80,000. Send CV to Dr John Gauder, Rice Clinic, SC, 2501 Main St, Stevens Point, WI 54481, or call collect 715/344-4120. 12tfn/87

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multispecialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Robert A. Braastad, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. p11-12/88;1-89

Career opportunity for qualified Emergency Room physician. Our group covers two hospital emergency rooms and an active walk-in clinic in southeastern Wisconsin. Full fringe benefit package and flexible scheduling offered. Interested parties contact John W. Linstroth, MD, 1201 Sherwood Lane, Caledonia, WI 53108; ph 414-835-7761. 8tfn/88

Minnesota Internist seeks BE/BC internist to join his practice in Brainerd, a central Minnesota resort community. Beautiful lakes and expanding retirement area. New 162-bed hospital with all specialties. Offices in five year-old medical office building. Contact Michael O. Musty, MD, 1903 South Sixth St, Brainerd, MN 54601; ph 218-828-4082. 11tfn/88

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Family practice. Four-physician group seeks fifth MD (BC/BE) to join growing practice located within one hour of Madison and Milwaukee. Full benefits, first year salary guarantee. One hundred and two bed community hospital located within one block from office. Send CV to Mrs Betty J. Parish, Clinic Mgr, PO Box 49, Watertown, WI 53094; ph 414-261-5204. ltfn/88

Northern Wisconsin
Pediatric physician to join multispecialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Eagle River—Great opportunity for two BC/BE family practice physicians to join well-established practice. Guaranteed annual income and future partnership available. For more information, send resume to Judy Harris, Recruiter, UW Office of Rural Health, 810 University Bay Dr, Madison, WI 53705 or call collect 608/263-7933. 1tfn/88

Otolaryngology—Brainerd, Minnesota. Join 20 MD multi-specialty clinic. No capitation. No start-up costs. Two hours from Minneapolis. Beautiful lakes and trees; ideal for families. Call collect/write Curtis Nielsen 218-829-0354 or 4901. PO Box 524, Brainerd, MN 56401. p1-2/89

Beloit Clinic, SC, an expanding multispecialty group in southern Wisconsin college town is seeking a pulmonologist, radiologist, allergist, ophthalmologist, and orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J. F. Ruethling, Administrator, 1905 Huebbe Parkway, Beloit, WI 53511; ph 608-364-2200. 10-12/88;1-3/89

Miscellaneous

For sale. Medical equipment, used but in excellent condition. Exam tables, cabinets, diagnostic equipment. Call 608-837-6984. p12/88;1/89

For Sale. Books. JBJS 1946-1977 bound; 1978-1988 unbound; subject: Bibliography, $2500. Clinical Orthopedics, Volume 47 to Volume 237(1988), $1000; complete set of orthopedic clinics of North America, Volume I to Volume 19(1988), $500; Instructional Course Lectures, 1954-1988, $500. Contact Jack D. Spankus, MD, 6221 N. Berkeley Blvd, Milwaukee, WI 53217. 1/89

Practice for sale. Retiring physician, downtown Milwaukee, will sell his practice reasonably. Contact Dept 623 in care of the Wisconsin Medical Journal. 1/89

PRIMARY CARE PHYSICIANS

West Suburban Hospital Medical Center is currently seeking highly skilled Physicians in Primary Care to meet the needs of our growing service area. Practice opportunities exist for new and existing practices, solo or small group practices, partnership or associate arrangements.

Our 372-bed not-for-profit acute care teaching hospital is affiliated with Chicago's finest medical schools. Located in the western suburb of Oak Park, we are just 20 minutes from downtown Chicago. For consideration, please forward your curriculum vitae to: **Director of Physicians Relations**

West Suburban Hospital Medical Center
Erie at Austin
Oak Park, Illinois 60302

Physicians Exchange

continued

For Rent. Doctor's Office, Hales Corners, Wisconsin, area 1050 sq ft. New building, first floor, ample parking. Reception, business office, three plumbed examining rooms, laboratory, private office and bath. For information call 414-764-6692 or 414-744-8007. 8tfn/88

Northern Wisconsin

Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Medical Director

We are a leading Wisconsin based hospital specializing in treatment of AODS, psychiatric and other behavioral disorders. We are seeking a medical director with strong leadership and administrative abilities along with appropriate psychiatric credentials to treat select patients. Position requires license to practice medicine in Wisconsin. Board-certification preferred. Malpractice insurance provided. Please submit resume to: Vice President-Human Resources, De Paul Hospital, 4143 South 13th Street, Milwaukee, WI 53221. Equal Opportunity Employer M/F/H. 1/89

1989 ANNUAL MEETING

STATE MEDICAL SOCIETY OF WISCONSIN

AT THE MECCA MILWAUKEE (Hyatt Hotel)

APRIL 13–15

Medical Meetings—Continuing Medical Education

February 24–26, 1989 (Illinois): 45th Annual Midwest Clinical Conference, Chicago Hilton and Towers, Chicago. Approved for up to 17½ credit hours in Category 1 of PRA/AMA. Info: Midwest Clinical Conference, Chicago Medical Society, 515 North Dearborn St, Chicago, IL 60610; ph 312/670-2550, ext 209. 1–2/89

July 20–22, 1989: Wisconsin Society of Obstetrics & Gynecology 1989 Annual Meeting, at Radisson Hotel, La Crosse. Info: WSOG, 850 Elm Grove Rd, Elm Grove, WI 53122. g1–7/89

JUNE 21–24, 1989: Wisconsin Academy of Family Physicians, Radisson Hotel, La Crosse g11tfn/88

SEPTEMBER 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. 12tfn/88

Epidemics and their social impact

Symposium sponsored by the Institute for Research in the Humanities, Departments of the History of Science, History of Medicine, and History, University of Wisconsin–Madison.

Friday, March 31, 1989
"Plague and medicine's past: The meaning of the 14th-Century Black Death from the Middle Ages to our own time"
"Rashes in the Renaissance: The threat of typhus"
"Tracing epidemics in the African past"
"Disease and the European settlement of the New World"

Saturday, April 1, 1989
"Mosquitoes, ships, and history: Yellow fever and public health reform in the 19th Century"
"The social impact of cholera in 19th-Century Europe"
"The Wages of sin? Struggles over the social meaning of venereal disease and AIDS"

For additional information call Loretta Freiling: 608/262-3855 or write Institute for Research in the Humanities, 1401 Observatory Drive, University of Wisconsin–Madison, Madison, WI 53706. 1/89

SEPTEMBER 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay, Wisconsin. g11tfn/88

1989 CME Cruise conferences on medico-legal issues and risk management.
Caribbean, Mexico, Alaska/Canada, China/Orient, Scandinavia/Russia, Mediterranean, Black Sea, Trans Panama Canal. Approved for 24–28 CME Category 1 credits (AMA/PRA) and AAFP prescribed credits. Excellent group rates on finest ships. Prescheduled in compliance with IRS requirements. Information: International Conferences, 189 Lodge Ave, Huntington Station, NY 11746; ph 800-521-0076 or 516-549-0869. p10–11/88;1/89

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

FOR LISTING of other meetings see the July 1, 1988 issue of the *Journal of the American Medical Association:* Continuing Education Opportunities for Physicians for period August 1988 through December 1988.

Medical Meetings—Continuing Medical Education

continued

AMA

JUNE 18–22, 1989: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 3–6, 1989: Interim House of Delegates, Honolulu, HI.

JUNE 24–28, 1990: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 2–5, 1990: Interim House of Delegates, Orlando, FL.■

What does Easter Seals do after Easter?

The same thing we do before Easter...and before and after Christmas, the Fourth of July, Passover and Thanksgiving Day. Our services for people with disabilities continue all year long.

- Physical, occupational and speech-language therapies
- Vocational evaluation and training
- Camping and recreation
- Psychological counseling
- Prevention and screening for disabling conditions
- And much more.

Holidays come and go. But Easter Seals is helping people every day to live independent and productive lives.

For more information on how you can be a part of it all, contact the Easter Seal Society in your community.

National Easter Seal Society
70 East Lake Street
Chicago, IL 60601
312/726-6200 (Voice)
312/726-4258 (TDD)

Books Received

New books received are acknowledged in this section. From these books, selections will be made for reviews in the interest of the readers and as space permits. Reviews are written by members of the faculty of the University of Wisconsin Medical School and others who are particularly qualified. Most books listed here will be available on loan from the State Medical Society of Wisconsin.

AIDS: A Guide for the Primary Physician. Edited by King K. Holmes, MD, and Arno G. Motulsky, MD. 1988. University of Washington Press, University of Washington, PO Box 50096, Seattle, WA 98145-5096. Pp 66. Price: $15.00.

Gynecologic Surgery. Edited by Luis E. Sanz, MD. 1988. Medical Economics Company, Inc, Oradell, NJ 07649. Pp 451. Price: $57.95.

Ciprofloxacin Product Information Monograph. 1988. Marcel Dekker, Inc, 270 Madison Ave, New York, NY 10016. Pp 153.

State Medical Society of Wisconsin

Dates and locations of
ANNUAL MEETINGS
1989–1993

All meetings will be held in Milwaukee at the Milwaukee Exposition and Convention Center and Arena (MECCA) and the new Hyatt Regency as the headquarters hotel, unless otherwise indicated.

1989—April 13–15
1990—April 26–28: Green Bay Convention Center, Embassy Suites
1991—April 18–20: Milwaukee Wyndham Hotel
1992—April 23–25
1993—April 15–17: La Crosse Convention Center, Radisson

Meetings days will be Thursday and Friday; the first session of the House of Delegates will convene on Thursday, the second and third on Friday. Scientific programming will be on Friday and Saturday.
Further information: Commission on Continuing Medical Education, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701. Local Telephone: 257-6781; toll-free in Wisconsin: 1-800-362-9080.

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StrategiCare ..... 7■
DISC Systems

Research saves lives.

American Heart Association
WE'RE FIGHTING FOR YOUR LIFE

Wisconsin Specialty Society Meetings: 1989

Wisconsin Orthopaedic Society, May 5, 1989, American Club, Kohler.

Wisconsin Chapter: American Academy of Pediatrics, May 22, 1989, Milwaukee.

Wisconsin Academy of Family Physicians, June 21–24, 1989, Radisson Hotel, La Crosse.

Wisconsin Society of Obstetrics & Gynecology, July 20–22, 1989, Radisson Hotel, La Crosse.

Wisconsin Society of Anesthesiologists, Sept 8–10, Lake Lawn Lodge, Delavan.

Wisconsin Society of Internal Medicine, Sept 14–16, 1989, Embassy Suites, Green Bay

SOME WOMEN THINK HEART DISEASE IS A MAN'S PROBLEM.

THEY'RE RIGHT.

Each year, 500,000 American women die of heart disease. It ranks as the leading killer among women of all ages. And after menopause, the risk of heart disease triples. All of which creates problems for men. Such as losing their mothers, wives, friends and colleagues. So if you thought that gender alone would protect you, it's time to change your thinking and your ways. Before heart disease becomes a problem for the men in your life.

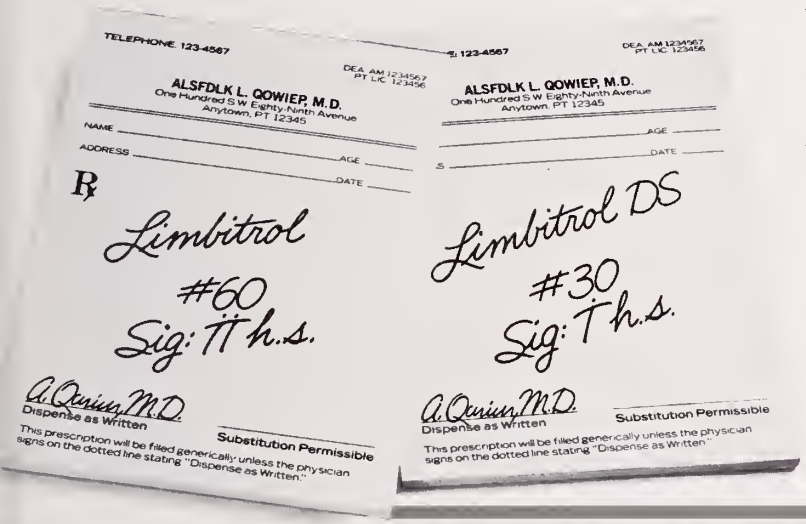
American Heart Association

WE'RE FIGHTING FOR YOUR LIFE

This space provided as a public service.

In moderate depression and anxiety

- 74% of patients experienced improved sleep after the first *h.s.* dose[1]
- First-week improvement in somatic symptoms[1]
- 50% greater improvement with Limbitrol in the first week than with amitriptyline alone[2]



Protect Your Prescribing Decision: Specify "Do not substitute."

Limbitrol®

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) Ⓥ

Limbitrol® DS

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓥ

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Feighner VP, *et al: Psychopharmacology 61:*217-225, Mar 22, 1979.

Limbitrol®Ⓥ
Tranquilizer—Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants; concomitant use with MAOIs or within 14 days of monoamine oxidase inhibitors (then initiate cautiously, gradually increasing dosage until optimal response is achieved); during acute recovery phase following myocardial infarction.

Warnings: Use with caution in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur when used with anticholinergics. Closely supervise cardiovascular patients. Arrhythmias, sinus tachycardia, prolongation of conduction time, myocardial infarction and stroke reported with tricyclic antidepressants, especially in high doses. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving).

Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations. Consider possibility of pregnancy when instituting therapy.**

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: Use cautiously in patients with a history of seizures, in hyperthyroid patients, those on thyroid medication, patients with impaired renal or hepatic function. Because of suicidal ideation in depressed patients, do not permit easy access to large quantities of drug. Periodic liver function tests and blood counts recommended during prolonged treatment. Amitriptyline may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady-state concentrations of the tricyclic drugs. Use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Should not be taken during the nursing period or by children under 12. In elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.

Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods; milder after taking continuously at therapeutic levels for several months. Withdrawal symptoms also reported with abrupt amitriptyline discontinuation. Therefore, after extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

Overdosage: Immediately hospitalize patient. Treat symptomatically and supportively. I.V. administration of 1 to 3 mg physostigmine salicylate may reverse symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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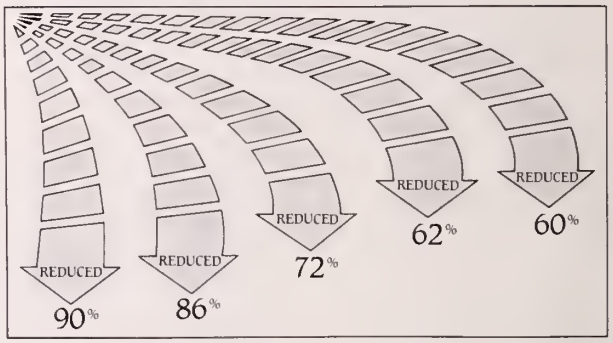

*Patients often presented with more than one somatic symptom.

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Wisconsin Medical Journal

Official Publication of the State Medical Society of Wisconsin

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Contents

Opinions

3 *President's page:* Casualties of the war on drugs
by JD Kabler, MD, Madison

4 *Voice of the SMS:* The butterfat incident

Editorials

6 A solemn promise
by Richard D. Sautter, MD, Marshfield
Medical editor

6 The profession remains united
by John P. Mullooly, MD, Milwaukee

8 A right to health care
by Russell F. Lewis, MD, Madison

10 *Book review:* A handbook of cancer pain management

Scientific

11 Acute rheumatic fever in Wisconsin
by Maria Victoria Tantengco, MD, Elliot Weinhouse, MD, Marisa Jarenwattananon, MD, and Dov B. Nudel, MD, Milwaukee

15 Self-poisoning with drugs
by Harry D. Kerr, MD, Milwaukee

18 Abstract: Micrographic surgery for carcinomas of the external ear
by Frederic E. Mohs, MD, Paul O. Larson, MD, and Manuel Iriondo, MD, Madison

19 *Special:* Medicaid patients' use of HMO services
by Herbert F. Laufenburg, MD, Milwaukee

23 Instructions for authors

Socioeconomic

25 *Loss prevention:* Preparing for the battle

30 Medicare: questions and answers

Organizational

33 Nominees for SMS offices: 1989

37 Specialty society news

38 Obituaries

39 Membership update

44 County society news

Our cover: "The sick child," by Gabriel Metsu (1630–1667), a genre and portrait painter of the Dutch school. Courtesy of the Madison Public Library.

Wisconsin Medical Journal

The *Wisconsin Medical Journal* (ISSN 0043-6542) is the official publication of the State Medical Society of Wisconsin and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor and editor are responsible for overseeing the production, business operation and contents of the journal. The editorial board, chaired by the medical editor, solicits and screens all scientific, special and soundings articles. The editorial director provides leadership for the editorial associates and comments on both editorials and letters to the editor. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the SMS take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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State Medical Society of Wisconsin

Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

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President's page

Casualties of the war on drugs

THE TRAGEDIES, WASTE, violence and human wreckage spawned by *illicit* drug use have resulted in a social, political and law enforcement response the media have termed "the war on drugs." Perhaps this is an apt metaphor because, as in all wars, there are innocent sufferers —every war has its civilian casualties.

Among the collateral casualties of the war on drugs are patients in acute pain who are denied adequate analgesia because of an unfounded fear of addiction. Physicians are pressured by families, some nurses, drugless healers, their own colleagues, and even patients themselves to needlessly limit the appropriate and proper prescription and administration of potent analgesics for the relief of pain and suffering.

Some patients with cancer pain receive ineffective or insufficient analgesia. Some patients with acute pain of renal colic and trauma receive short-acting meperidine at long intervals instead of more frequent doses of the *gold standard* narcotic, morphine. Even morphine is too seldom given in adequate dose because of insufficient knowledge about the correct clinical use of this invaluable anodyne, unfounded fears of respiratory depression and creation of addiction. In fact, addiction rarely is caused by the medical use of narcotics. Pain is an antidote to respiratory depression. An average dose of an analgesic is just that and, therefore, insufficient for many in severe pain.

If you ask senior students in a medical school class on therapeutics which narcotic they have most often observed to be administered for severe pain, they reply, "Demerol." If you ask the same group what they would prefer to have administered to them if *they* were in pain, the answer is "morphine." A group of physicians would likely give the same responses. This gap between preferences and prescription needs closing. May I, therefore, submit some terse principles about pain relief for prescribers' consideration?

- Suffering does not ennoble and pain does not build character.
- Tolerance, dependence and habituation are not addiction. Addiction is the product of inappropriate, nonmedical, illicit drug abuse.

JD Kabler, MD

- The medical use of narcotics does not cause criminality, social pathology and addiction. Addiction is caused by social pathology and criminality.
- Appropriate analgesic prescribing means: dose enough, often enough, long enough.
- Prescribe as you would receive.

Voice of the SMS

The butterfat incident

THE ACTIONS OF the American Medical Association are usually beneficial to the profession, but there arises the occasional issue which touches the lives of people everywhere and which threatens to jar the AMA off course. The resolution presented by the California delegation at the recent meeting in Dallas, asking the AMA to seek legislation or regulation identifying 2% butterfat content as the level for "regular" milk, is one such issue.

Fortunately, the AMA listened to the delegates from dairy states, led by SMS Alternate Delegate Cyril M. Hetsko, MD, and defeated the proposal.

Dr Hetsko said that consumers are aware of the choices of skim milk, 1%, 2%, and whole milk, and that labeling is already regulated. The proposed changes would have merely confused consumers. Later, Dr Hetsko told the *American Medical News*:

"We have just done a scientific survey—Betsy the Cow in Minnesota and Elsie the Cow in Wisconsin are still producing at 4% butterfat and we report that no motion of this house will change this today. We strongly considered an amendment (to the butterfat proposal) that would have stated 'and be it further resolved that implementation of this resolution be contingent upon reducing the amount of sugar in any fruit grown domestically to one calorie per serving.' "

The proposal was opposed by other physicians as well, including some from the Food and Drug Administration and the Public Health Service, and pediatricians and other physicians who stressed that butterfat is necessary to many elderly and critical to the development of very young children. The proposal would have created the impression that the medical community considers whole milk unhealthy and created a hardship for Wisconsin's dairy farmers. Thus, the resolution's defeat represents a victory not only for Wisconsin's physicians and the state's reputation as America's Dairyland, but for plain old common sense.

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Editorials

A solemn promise

THERE IS MUCH CONCERN about the government's regulation of the practice of medicine. The concern is justified. As physicians, we anticipate the loss of our ability to offer the best in medical care. We fear the rationing of health care. Some are uncomfortable about the prophesied loss of income. We resent more and more the paperwork, forms, authorizations, second opinions, and so forth, which sometimes interfere in our relationship with our patients.

I attended a recent meeting regarding the economics of medicine and saw examples of how the government intends to intercede. We have need to worry. But as I listened to the speakers, it occurred to me that what I did *not* hear was the solemn promise that we, as physicians, will deliver the best medical care possible to all who come to us regardless of their ability to pay.

Such a promise would go a long way in convincing the public that there is a great deal more at stake in the government's intervention in medical care than just the doctor's compensation: Our ability to deliver high quality health care in the future is being decided now.

We, as physicians, should never take the position of holding our services hostage because of an issue regarding compensation. We should make and keep this solemn promise.

—Richard D. Sautter, MD
Medical Editor

The profession remains united

THE PHYSICIANS of the United States demonstrated their solidarity in a most convincing manner recently when the AMA House of Delegates unanimously adopted its own committee's report on the much-discussed Resource-Based Relative Value System. This year's interim meeting of the AMA in Dallas had been preceded by several months of intensive study of the RBRVS by the AMA board of directors, state medical associations, and national specialty societies. Everyone who came to Dallas was thoroughly prepared for this issue. We all knew it would be vigorously debated, especially by the specialty groups who were afraid of losing out to the primary physicians.

Prior to the meeting, many delegates voiced fears that this issue would split the medical profession, leaving the physicians ready to be defeated in detail as each splinter group tried to get its own way. But, thanks to the sterling leadership of the various societies, the open debate on the floor of the house, and the skillful crafting of the reference committee report, such a split did not take place. Instead, all endorsed the reference committee report. It is now policy for the AMA.

This unanimous endorsement began with the homework each delegate did in preparing for the meeting. The AMA board of directors deserves a great deal of credit for the magnificent report it issued to the delegates. In its report on the Harvard study, the board pointed out the strong and weak aspects. Areas that were important, but not covered by the study, were highlighted. The necessity for further study and fine tuning of the RBRVS was emphasized. In the reference committee report these factors were included and dovetailed with much of the criticism voiced by many of the delegates. With the acceptance of the reference committee report by the house, the underlying principle with regard to physician reimbursement was firmly established. It demonstrated that we physicians can overcome our differences to achieve equity and fairness. We, as a society, can now present a united voice to Congress, HCFA, and the new Republican administration.

Continued on page 8

Opinion policy

Opinions expressed in the Voice of the SMS section reflect the official policy of the State Medical Society of Wisconsin.

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- Discontinue Ceclor in the event of allergic reactions to it.
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- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)
Therapy-related adverse reactions are uncommon. Those reported include:
- Gastrointestinal (mostly diarrhea), 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme (rarely, Stevens-Johnson syndrome) and toxic epidermal necrolysis or the above skin manifestations accompanied by arthritis/arthralgia, and frequently, fever), 1.5%, usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia.

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Continued from page 6

How our position will fare with these entities is the question. "Many a slip between cup and lip." We know that Congress held off our capitation and DRGs for physicians while waiting for this report. We know that the Physicians Compensation Panel is working on a similar approach. We know that HCFA and President Reagan's administration were opposed to RBRVS. President Bush has not committed himself but many feel he will not be much different. Nevertheless, you can be sure that organized medicine will be there battling with hammer and tongs to make sure that physicians in this country will get a fair shake with regard to reimbursement. By the same token, our patients will benefit, in the main, through greater access to care, fewer out of pocket expenses, and higher quality care.

There is a great deal of hard work ahead for us as a profession, but it is worth it all if we can stand united in pursuing the ideals to which we committed ourselves those many years ago when we bound ourselves to the good of our patients and their welfare with our Hippocratic Oath.
—John P. Mullooly, MD
Milwaukee

A right to health care

ON PAGE 26 of the October 1988 issue of the *Wisconsin Medical Journal* there appeared this brief story:

"A right to care"

Ninety percent of American nonphysicians recently surveyed by Louis Harris and Associates said they viewed health care as a right. Only 68% of the physicians surveyed agreed. (Reported in *American Family Physician.*)"

That same day I was reading a book about the famous German physician Rudolph Virchow, who in 1948 said: "Every individual has the right of existence and health, and the state is responsible for insuring this."

I was brought up to believe that every American had rights to food, clothing, and shelter. As I became a physician many years ago, I came to the conclusion that every American should have the right to good health care.

I was struck and dismayed by the article in the *WMJ*. Perhaps the fact that 32% of physicians are so out of the mainstream of public opinion explains why the medical profession is not as respected and loved as it used to be.

It would seem to me that if any segment of the society should feel—as they deal with people daily in a face-to-face basis—that good health care is a right, it would be the medical profession. It would also seem to me that it would certainly be to our best advantage to accept and expound that philosophy and make every effort to make sure that it is.

How we can say, as a profession, that adequate prenatal care for a pregnant woman is not her right baffles me. I thought it was the right of all children with polio—or even suspected polio back in the late '40s when we had those epidemics—to have good, up-to-date medical care.

Perhaps some of us have been confused, as we look at the socioeconomic problems facing medicine and society today, by putting too much emphasis on the economic aspect, but I would like to suggest that we, as a profession, adopt the attitude that adequate health care is the right of every American. I appreciate that most physicians have done that. I know organized medicine continues to work for that aim, but if we can't, as a profession, get with the 90% plus of the population who believe in health care as a right, and do our best to achieve it, we will see Virchow's statement that government has a duty to provide it come true—a consideration that only a minor percentage of physicians at this time would favor.
—Russell F. Lewis, MD
Madison

Colored contact lens caution

Colored soft contact lenses are becoming increasingly popular, but this new eyewear might affect peripheral vision in some patients, according to a report in the December 1988 *Archives of Ophthalmology*. Researchers at the Louisiana State University Medical Center School of Medicine performed visual field testing on ten patients with normal vision wearing a recently introduced colored soft contact lens. All but one patient lost some peripheral vision, ranging from 5° to 20°. Overall peripheral visual field loss ranged from 21% to 47%. The problem may be due to the opaque colored dots applied to the lens periphery to give it its blue, green or aqua color.

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Book review

Handbook of cancer pain management

The first edition of the *Handbook of Cancer Pain Management* (Weissman, Burchman, Dinndorf and Dahl) compresses a wealth of experience and information into an easily accessible (only 38 pages) and highly readable format. Most patients suffering cancer pain will benefit if their health care providers adhere closely to the principles outlined in the handbook.

The handbook represents the joint efforts of cancer pain experts from the Medical College of Wisconsin, the University of Wisconsin Medical School and the Cancer Pain Initiative, and was sponsored by the World Health Organization. The chairman of the Controlled Substances Board of the State of Wisconsin, June Dahl, PhD, provided leadership for the initiative by advocating the optimal use of these important drugs in the care of cancer patients.

This reviewer cannot emphasize too strongly the need for physicians to master the kinds of information in this booklet for the sake of the suffering human beings who depend on them. Half of the cancer patients we see will die of the disease, and the great majority of them will need pain control.

Ignorance, specious moralizing, ingrained habits mislabeled as experience, inertia, lack of empathy, lack of communication, misunderstanding, and interprofessional turfdom battles are continuing obstacles to the proper care of the patient. Dear doctor, please listen to your patient's plea for help with these dreadful problems, listen to the nurses who attend them, and make use of the information in this handbook to bring your skills in pain control up to date. —*RDS*

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Acute rheumatic fever in Wisconsin

Maria Victoria Tantengco, MD, Elliott Weinhouse, MD,
Marisa Jarenwattananon, MD and Dov B. Nudel, MD, Milwaukee

Medical records of patients discharged from Children's Hospital of Wisconsin from January 1980 to May 1988 who fulfilled the revised Jones criteria for acute rheumatic fever were reviewed. A total of 13 patients were hospitalized with a first attack of acute rheumatic fever during this period. Migratory polyarthritis was present in 92% of the patients and carditis in 62%. Mitral regurgitation was present in all cases of carditis. Only six patients (46%) had a history of a preceding streptococcal infection, half of whom were treated with antibiotics. While there is no evidence to support a new outbreak of acute rheumatic fever in Wisconsin, our data demonstrate that the disease is still prevalent within the eastern region of the state. Patients with Group A streptococcal pharyngitis must be identified and treated to prevent this disease from increasing in incidence. *Wis Med J* 1989;88:11–15.

RHEUMATIC FEVER is a unique nonsuppurative delayed sequel to upper respiratory infections with Group A beta-hemolytic streptococci, primarily involving cardiac, joint, central nervous system, and subcutaneous tissues. While the exact mechanism or mechanisms of its pathogenesis remain unclear, much progress has been made in better defining the immunogenetic and molecular biological aspects of this disease.[1-4]

From the Department of Pediatrics, Section of Cardiology, Medical College of Wisconsin. Reprint requests to: Elliott Weinhouse, MD, Medical College of Wisconsin, Department of Pediatrics, MACC Fund Research Center, 8701 Watertown Plank Rd, Room 3050, Milwaukee, WI 53226 (telephone: 414-266-4190). Copyright 1989 by the State Medical Society of Wisconsin.

Rheumatic fever is a major cause of morbidity in many developing areas of the world[5] and appears to have reemerged in certain areas of the United States in proportions almost tenfold greater than the general declining incidence rate of rheumatic fever in this country over the past four decades.[6] In this study we have attempted to characterize the epidemiologic and clinical features of acute rheumatic fever within eastern Wisconsin from January 1980 to May 1988.

Methods

Medical records from Children's Hospital of Wisconsin (CHW) with the discharge diagnosis of acute rheumatic fever from January 1980 to May 1988 were reviewed. CHW in Milwaukee serves as one of the principle pediatric referral centers for the entire state of Wisconsin and portions of northern Illinois and Michigan.

Fulfillment of the modified Jones criteria (Table 1)[7] was required to identify patients with acute rheumatic fever. To determine the number of new cases each year since 1980, all patients with a preexisting history of acute rheumatic fever or rheumatic heart disease were excluded from this study. Exclusion was also made on the basis of inconclusive data, particularly in situations where polyarthritis was the only major criterion and was not clearly migratory in nature, and when there was no strong evidence of a recent streptococcal infection.

Throat swab cultures and serum specimens taken to test antibody responses to streptolysin O, deoxyribonuclease B and hyaluronidase were obtained from the majority of patients with the use of standard techniques and commercially available reagents. The upper limits of normal of the different antibody titers used in our laboratory are as follows:

- ASO: 125 TU (1980), 160 TU (1981, 1986), 120 TU (1984, 1988);
- Anti-DNAse B: 1:170 (1980, 1986), 1:340 (1981, 1984, 1988);
- AHT: 1:256 (1981, 1984), 1:128 (1986).

Routine chest films and electrocardiograms were available for each patient. In addition, a complete M-mode and two-dimensional echocardiogram including Doppler flow echocardiography was used to further delineate and describe the extent of valvular, myocardial, or pericardial

involvement in all patients suspected of having rheumatic carditis based on physical examination.

Results

From January 1980 to May 1988, 13 patients who fulfilled the modified Jones criteria for acute rheumatic fever were admitted to CHW. The number of patients seen each year was as follows: one in 1980, four in 1981, three in 1984, and two in 1986, with no new cases identified in 1982, 1983, 1985 and 1987. Interestingly, in the first five months of 1988 alone we saw three new patients with acute rheumatic fever, all with carditis.

Patient Profile. Patients' ages ranged from 4 to 17 years with a mean of 9.8. Sex distribution was roughly equal, with seven boys and six girls. Of the 13 patients, seven were white, four were black and one each was of Asian and Hispanic descent.

The average number of household members for each patient was 5.7, ranging from a total of four to ten. In addition, two patients had a positive family history for acute rheumatic fever. Based on the livelihood of at least one parent, seven of nine patients came from middle income families. From 1980 to 1986 nine out of ten patients came from central to southeastern Wisconsin (Kohler, Mequon, Milwaukee, New Berlin, South Milwaukee, and Sturtevant) while two in 1988 were from the northeastern portion of the state (Green Bay and Oconto Falls), and one was from the city of Milwaukee.

Clinical manifestations. Of the 13 patients found to fulfill the modified Jones criteria, six (46%) had only one major criterion; five of these had migratory polyarthritis and one, carditis (Table 2). On the other hand, seven patients (54%) had both carditis and polyarthritis. Chorea, erythema marginatum, or subcutaneous nodules were not found in any of our patients.

Polyarthritis, whether alone or in combination with carditis, was present in 12 of 13 patients (92%). The knees and ankles were the most frequently affected joints.

All eight patients with carditis (62%) were examined with a complete echocardiogram including Doppler ultrasonography. Mitral regurgitation was found in all eight patients, occurring alone in five, in combination with aortic insufficiency in two, and with tricuspid regurgitation in one. No child had congestive heart failure or pericarditis. Variable degrees of left ventricular enlargement, with or without left atrial enlargement, was found in these patients, without impairment of left ventricular function.

Carditis or migratory polyarthritis appearing as an isolated major manifestation was associated with fever in five out of six patients (83%), elevated erythrocyte sedimentation rate (ESR) of 40 to 138 mm per hour (mean = 84.7), leukocytosis with a left shift in two patients (33%), and a positive throat culture for *S. pyogenes* in four (67%), with no patient exhibiting a prolonged PR interval.

Polyarthritis in combination with carditis, on the other hand, was accompanied by fever in six out of seven patients (86%), ESR values ranging from 53 to 140 mm per hour (mean = 100.6), leukocytosis in three patients (43%), prolonged PR interval in three patients (43%), and a positive throat culture in only two patients (29%).

Five patients (38%) were found to have a history suggestive of a streptococcal pharyngitis within five weeks prior to the onset of acute rheumatic fever consisting of a sore throat variably associated with fever, malaise, and abdominal pain, cough or both. One child had a suggestive history, but the event had occurred three months prior to admission. Whether prior screening tests for streptococcal infection were performed is not known. Only three of the above six patients were treated with appropriate antibiotics. Five patients reported nonspecific constitutional signs and symptoms without a sore throat, while two had no ante-

Table 1.—Jones criteria (revised) for the diagnosis of acute rheumatic fever*

Major Manifestations	Minor Manifestations	Supporting evidence of streptococcal infection
Carditis	Clinical	Increased titer of streptococcal antibodies:
Polyarthritis	Previous rheumatic fever or rheumatic heart disease	ASO (anti-streptolysin O) and/or other antibodies
Chorea	Arthralgia	Positive throat culture for Group A *Streptococcus*
Erythema marginatum	Fever	Recent scarlet fever
Subcutaneous nodules	Laboratory	
	Acute phase reactants: ESR, CRP, leukocytosis	
	Prolonged PR interval	

*The presence of at least two major or one major and two minor manifestations along with confirmatory evidence of a preceding streptococcal infection indicates a high probability of acute rheumatic fever.

cedent history at all. During the acute rheumatic fever episode itself, three patients (23%) were afebrile.

Laboratory data. The majority of the patients (84%) exhibited ESR values of more than 50 mm/hr. Throat cultures were performed on admission in 12 patients, 50% of whom were positive for *S. pyogenes.* Eleven patients had an ASO titer determination on admission. The titer was higher than the upper limit of normal in ten of the patients tested (91%). Likewise, six out of seven patients (86%) exceeded the upper limit of normal for both anti-DNAse B and anti-hyaluronidase titers.

Discussion

Numerous reports have confirmed the declining incidence of acute rheumatic fever in the United States even prior to the introduction of antimicrobial agents.[8,9] Data gathered by the National Center for Health Statistics,[8] show that the annual rate of hospital discharges of patients with acute rheumatic fever under 19 years of age declined from 19.2 (1965 through 1967) to 2.8 (1979 through 1983) per 100,000 age-adjusted population. Studies of prevalence rates of acute rheumatic fever showed a steady marked decrease per 100,000 population in 5- to 15-year olds in Baltimore, from 26 (1960 through 1964) to 0.5 (1977 through 1981)[10] and in Rochester, Minn,[11] from 65 in 1935 through 1949 to 9 in 1965 through 1978.[11]

Incidence rates of initial episodes likewise dropped in Rochester, Minn, from 13.6 (1935 through 1949) to 2.7 (1965 through 1978) as well as in Fairfax County, Virginia[12] from 3.0 in 1970 to 0.5 in 1980. Similar trends were also found, especially within the 5- to 17-year-old age group with the most frequent attack rate, in Shelby County, Memphis (1.88, 1977 through 1981),[13] San Fernando Valley area of California (0.63, 1971 through 1980)[14] and in Rhode Island (0.23, 1976 through 1980).[15]

What is especially intriguing are almost simultaneous reports of what appears to be the resurgence of acute rheumatic fever in Salt Lake City, Utah;[16] Akron[17] and Columbus,[18] Ohio; Pittsburgh, Pa[19] and in Texas and Hawaii.[6] In the Salt Lake City area the number of patients admitted each year rose from a mean of 6 in 1975 through 1984 to 74 from January 1985 through June 1986, giving an age-adjusted incidence of 18.1 per 100,000 population. This figure is comparable to that observed in the same area nearly 30 years ago and is the highest observed in the United States within the past decade.[16]

From these latest reports, it appears that children from white middle class families who live in suburban or rural areas with ready access to medical care are the most frequently affected. Polyarthritis and carditis are still the two most commonly seen major criteria. Echocardiography has been found to be especially valuable for detecting mitral insufficiency in cases where this finding may have been missed on physical examination alone.[16,20,21] A higher incidence of group A streptococcal infection or colonization has not been demonstrated, although an unusual mucoid strain not previously associated with acute rheumatic fever, M type 18, has been isolated sporadically in Akron, Ohio, and in the Salt Lake City area.[16,17]

Table 2.—Manifestations of acute rheumatic fever in 13 patients

Major manifestations	**No. (%) of patients**
Carditis and polyarthritis	7 (54)
Polyarthritis alone	5 (39)
Carditis alone	1 (8)
Patients with polyarthritis (n = 12)	
Knee	10 (83)
Ankle	9 (75)
Hand/wrist	4 (33)
Elbow	3 (25)
Hip/shoulder/temporo-mandibular	0
Patients with carditis (n = 8)	
Mitral insufficiency	5 (62)
Mitral and aortic insufficiency	2 (25)
Mitral and tricuspid insufficiency	1 (12)
Minor criteria	
Fever	
>39 °C	4 (30)
38.4 °–39 °C	6 (46)
<38.4 °C	3 (23)
Arthralgia	13 (100)
ESR (mm/hr)	
20–49	2 (15)
50–100	4 (30)
>100	7 (54)
PR interval	
prolonged	3 (23)
normal	10 (77)

Our experience at Children's Hospital of Wisconsin is comparable to that found elsewhere in the United States within the same study period. In the present study some degree of underestimation cannot be excluded because of problems in case identification and verification. Nevertheless, we thought it was significant that three new cases of acute rheumatic fever appeared within the first five months of 1988. All three patients came from different communities and one had both migratory polyarthritis and carditis with mitral insufficiency. One child had rheumatic pneumonitis as well without any pleural or pericardial effusion. She also had normal left ventricular function. *S. pyogenes* was isolated in this patient. Whether these three patients represent a new trend in the incidence of acute rheumatic fever in the eastern portion of the state remains to be seen.

A full understanding of the epidemiology of acute rheumatic fever cannot be attained without a global overview. Rheumatic fever is a significant cause of morbidity and mortality in Asia, the Middle East, Africa, and Central and South America.[5,22] The average annual prevalence rate per 100,000 population in Santiago, Chile, was 6.5 (1977 through 1981)[23] and in southern Israel it was 14.7 (1974 through 1983),[24] comparable to the latest reports from the Salt Lake City intermountain areas.

Prevalence rates, however, are almost a hundred-fold greater in certain areas of India,[25] Libya, and Morocco.[26] This is in contrast to more developed countries like Sweden,[27] where the incidence of acute rheumatic fever has dropped to 0.2 per 100,000 population each year from 1971 through 1980. The presence of carditis during the initial attack of rheumatic fever remains high in Kuwait and in Japan (46% and 70%, respectively) with mitral regurgitation as the most common presentation.[26,28]

The presence and severity of carditis during the initial attack has far reaching implications due to a strong positive correlation between its presence and the prevalence of recurrent rheumatic heart disease despite intensive secondary prophylactic therapy in the developing countries of the world.[22]

In conclusion, rheumatic fever has reemerged as a medical problem in several areas of the United States, including the state of Wisconsin. Physicians must be aware of this when confronted with polyarthritis, carditis, or both in children and adolescents.

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Clove cigarettes may have added hazard

Clove cigarettes are tobacco products possessing all the hazards associated with smoking, but may pose additional hazards for some people, according to an AMA report in a recent issue of *JAMA*. The Council on Scientific Affairs report said inhaling clove cigarette smoke has been associated with severe lung injury in a few susceptible individuals with certain respiratory problems. What's more, "some individuals with normal respiratory tracts and normal pulmonary function may suffer pulmonary aspiration as a result of a diminished gag reflex produced by a local anesthetic action of the eugenol contained in clove cigarette smoke."

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A call for photographs

The *Wisconsin Medical Journal* and the SMS Charitable, Educational, and Scientific Foundation are joining forces in an effort to build a photographic library of medicine in Wisconsin. Donations of current or historical photos relating to medicine—persons or places, equipment or events—are welcome and tax deductible. All donated photos will become the property of the Fort Crawford Medical Museum, which is owned and operated by the foundation, and may be used to illustrate future issues of the *Wisconsin Medical Journal*. Send your photos to: Thomas L. Adams, State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701-1109.

Nicotine and infants

Forty percent of babies breast-fed by smokers showed signs of colic—crying for more than 2 to 3 hours a day, at least 4 days a week—compared to 26% of the infants of nonsmokers in a study at the University of Oslo, Norway. The study of 885 mothers, reported in a recent issue of *JAMA*, also found nicotine in breast milk in notable concentrations.

Self-poisoning with drugs

Harry D. Kerr, MD, Milwaukee

A retrospective review was made of all patients with the diagnosis of drug ingestion or overdose seen in an urban community hospital over 30 months. There were 133 episodes involving 129 patients. Of these, 104 (78%) were hospitalized, including 96 at the study hospital. Fifty-three patients (55%) were initially admitted to the intensive care unit, and 57 (59%) were cared for in the psychiatry unit at some time during their course. One patient died, and 21 others (15%) suffered adverse consequences, including airway compromise requiring intubation, aspiration, seizures, cardiopulmonary arrest, and significant arrhythmias. The treatment rendered was supportive only, with no patient requiring hemodialysis or hemoperfusion.

Multiple drugs were involved in 31% of the overdoses. The most common agents were benzodiazepines (32%), tricyclic antidepressants (24%), and acetaminophen (20%). A history of drug ingestion was obtained in 94% of patients. Based on subsequent drug level and drug screen testing, the history was judged accurate in 71% and inaccurate in 29%. The problems confronting hospitals that care for relatively few overdose patients but in a consistent pattern are discussed. *Wis Med J* 1989;88:15–18.

Deliberate overdoses of medication, either with the intent of committing suicide or as a method of influencing others, are a common problem confronting nearly every hospital. There is considerable national information available regarding agents that are commonly taken, but there is little in the literature con-

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(33%). Drug screens were done in 38 patients (29%), and 76% confirmed the history completely or substantially. The history was regarded as unreliable in 24%, either because other drugs were found (and not those mentioned in the history) or because none were found. Testing confirmed the presence of the agent sought in 71% and did not in 29%.

Twenty-five percent of patients arrived at the hospital within one hour of ingestion and 25% within one to three hours. The remainder delayed seeking treatment for up to 48 hours. Though adverse consequences included airway obstruction requiring intubation (19 patients), aspiration (2), seizures (4), cardiopulmonary arrest (5), significant arrhythmias (4), and one death, treatment rendered was mainly supportive. No patient required more advanced treatment methods such as hemodialysis or hemoperfusion. One patient who suffered cardiopulmonary arrest was left with chronic anoxic encephalopathy and was discharged to a chronic care facility.

Table 2 compares Columbia Hospital data to other recent studies of hospital overdose populations.[1-5]

Table 1.—Drugs ingested

Drug group	Single ingestion	Part of a multiple ingestion	Total No.	Total %
Benzodiazepines*	24	19	43	32
Tricyclic antidepressants†	20	12	32	24
Acetaminophen	13	13	26	20
Opioids‡	0	18	18	14
Antihistamines§	8	8	16	12
Aspirin	6	9	15	11
Ibuprofen	2	5	7	5
Phenothiazines/haloperidol‖	4	3	7	5
Sympathomimetics§	0	6	6	5
Antibiotics¶	1	4	5	4
Beta blockers#	2	2	4	3
Carbamazepine	2	1	3	2
Thiazide diuretic	0	2	2	1.5
Unknown agent(s)	2	0	2	1.5
Phenobarbitol	1	1	2	1.5
Lithium	1	1	2	1.5

Others (one each): oral hypoglycemic, ethchlorvynol, tamoxifen, cafergot, meprobamate, indomethacin, insulin, phenylzine, chloroxazone, vitamin, theophylline, ammonium chloride, medroxyprogesterone, buspirone, bisacodyl.

*Ativan, Dalmane, Halcion, Librium, Restoril, Tranxene, Valium, Xanax.
†Aventyl, Elavil, Norpramin, Sinequan, Surmontil, Tofranil.
‡Codeine, Darvon, Darvocet, Percocet, Tylox.
§Benadryl, Bromotuss, Dimetapp, Ornade, Pyribenzamine, Sineaid, Sominex, Tussinex, ULR-LA, Unisom.
‖Haldol, Mellaril, Serentil, Thorazine, Trilafon.
¶Amoxacillin, Duricef, Erythromycin.
#Atenolol, Inderal, Lopressor.

Discussion

Of 680 suicides reported in Wisconsin for 1987, 66 were attributable to drug overdose.[6] Often, however, the discovery of drug involvement in unexplained deaths depends on the thoroughness of the medical examiner.[7] Thus, if only hospital surveys are relied on for data, the number of deaths due to overdose may be underestimated. The ratio of deaths to numbers of overdose patients seen in this study (1/133, 0.75%) was similar to that noted in the much larger study in Norfolk, England (16/3,349, 0.48%).[5]

In any case, overdoses, particularly those due to tricyclic antidepressants, place great demands on physicians' time and diagnostic abilities, on hospital inpatient services, and on laboratory capabilities. The use of management protocols such as those offered in the Poisindex[8] may smooth overdose management in settings where overdose is a continuing but infrequent problem.

Inquiries such as the one described above can be useful to individual hospitals, both in judging the efficiency of their own services and in detailing overdose prevalence and agents involved in the locality. Such studies might serve as a means of better identifying at-risk patients and encouraging caution in the use of the more dangerous agents. Such information could form the basis of physician and community educational efforts regarding the risks and management of overdoses.

The results of this small retrospective study were comparable to recent larger studies in demographic characteristics and agents involved. The problems seen were also similar, particularly in the areas of multiple ingestions, adverse effects, and use of services. Studies of diverse localities suggest that overdose is a persistent problem in Western society no matter what the location or the agents involved.[9,10] The results of this study suggest that drug overdose is a topic worthy of consideration for the quality assurance investigations now required of each hospital.

cerning the pattern or frequency of such overdoses in individual hospitals. This study detailed the scope of the problem in one hospital.

Methods

A retrospective review was made of the charts of all patients with a diagnosis of drug ingestion or overdose admitted to Columbia Hospital or seen in its emergency department (ED) in the period from Jan 1, 1986, through June 30, 1988. Columbia Hospital is a 394-bed general community hospital serving a largely adult population in the northeast section of Milwaukee. Patients were enrolled for this review based on diagnoses recorded in the ED daily log and on the results of a computer search of inpatients with ICD-9 diagnostic codes for drug overdose or ingestion.

All listed charts were located and reviewed by the author. Demographic data and information regarding diagnosis, adverse consequences, length of stay, treatment, and outcome were recorded on a work sheet devised for this purpose.

Results

During the 30-month study period 133 patients with deliberate drug overdoses were seen. Nearly all were examined initially in the ED and constituted 0.025% of all ED visits for the period. Thirteen percent of patients were seen in the period from 11 PM to 7 AM. No seasonal or monthly variation was noted. Only four patients had repeat overdoses, and no patient had more than two visits.

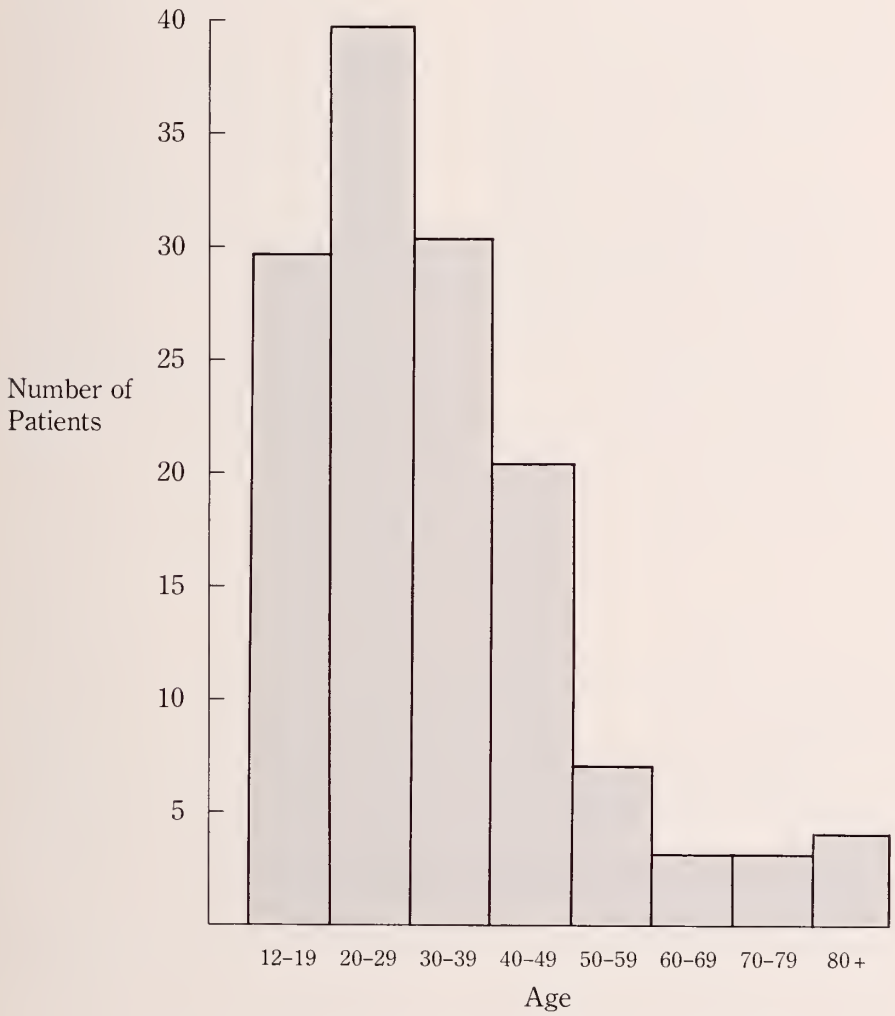
The patients were predominantly female (99 females, 34 males) and relatively young (see Figure).

Ninety-six (72%) of these patients were admitted to Columbia Hospital, and eight (6%) were transferred to other hospitals. Of those not admitted, 26 (20%) were discharged home from the ED, one died there, and two left against medical advice.

Of the Columbia admissions, 53 patients (55%) were cared for initially in the Intensive Care Unit and 23 others on medical wards. The mean length of stay was 2.1 days (SD = 1.4; range, 1 to 8). All or part of the hospitalization of 57 (59%) was spent on the psychiatry ward with a mean length of stay of 14.3 days (SD = 15.8, range, 1 to 77). The overall mean hospital stay was ten days. Six inpatients were transferred to other hospitals, and four left the hospital against medical advice.

The medications taken are listed in Table 1. Multiple (two or more) drugs were taken by 41 patients (31%), and 92 (69%) took only one drug. The mean number of drugs taken was 1.68 (SD = 1.1, range, 1 to 6). Over-the-counter (OTC) drugs accounted for 23% of the ingestions. Included in this group were products promoted for sleep, such as Sominex, for weight or water reduction, such as Aquaban, and the common pain remedies. Ibuprofen, recently approved for OTC sale, was involved in seven ingestions (5%). Tricyclic antidepressants were taken by 32 patients, and three others had ingested the structurally similar carbamazepine. Of the 19 patients requiring intubation, 13 had taken tricyclics. All five of the patients who developed cardiopulmonary arrest and the one patient who died had ingested tricyclics. Alcohol was involved in 28 ingestions (21%).

In only seven patients was there no history of ingestion given on the patient's arrival. The history of the amount of the drug taken indicated a possibly fatal dose in 44 patients



Age distribution of patients. Mean age = 32 years (SD = 15.5)

Table 2.—Comparison with other recent studies

	Milwaukee (1986–8)	Newcastle[1] (1980–2)	Glasgow[2] (1983)	Worcester[3] (1979)	Lansing[4] (1981)	Norfolk[5] (1978–82)
Number of patients	133	747*	73	82	160*	3349
Study duration (mos)	30	36	1.5	10	12	60
Patients per week	1.1	5.2	12.1	2.0	3.0	12.9
Female:male ratio	3:1	2.1:1	1.8:1	?	1.9:1	1.5:1
Mean age	32	?	33	25	27	30
Benzodiazepines	32%	35%	56%	29%	First	39%
Tricyclic antidepressants	24%	9%	10%	17%	—	19%
Analgesics	36%	7.9%	36%	26%	—	43%
Acetaminophen	20%	—	—	11%	—	—
Aspirin	11%	—	—	15%	Second	—
Ibuprofen	5%	—	—	—	—	—
Opiates	14%	—	—	10%	—	—
Antihistamines	12%	—	—	1%	—	—
Barbiturates	1.5%	7.1%	—	16%	—	—
Single drug	69%	?	55%	45%	?	72%
Multiple drugs	31%	?	45%	55%	?	28%

*Inpatients only

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Abstract

Micrographic surgery for carcinomas of the external ear

Micrographic surgery is particularly valuable for treating carcinomas of the external ear because the total microscopic control of excision afforded by this method permits the selective removal of the clinically unpredictable cancerous outgrowths. The maximum conservation of normal tissues, including the cartilaginous framework that gives shape to the ear, is a benefit next in importance to the unusually high 5-year cure rates (97.1% in a series of 1,213 cases of basal cell carcinoma, and 92.3% in a series of 871 cases of squamous cell carcinoma). The fresh-tissue technique for removing most auricular carcinomas usually permits the successive layers to be excised in one day, and repair, if needed, can be done immediately. The fixed-tissue technique is still used by the authors for some extensive, bone-invading carcinomas.

Frederic E. Mohs, MD, Paul O. Larson, MD, and Manuel Iriondo, MD, Department of Surgery, Mohs Surgery Clinic, University of Wisconsin Hospital and Clinics, Madison, Wisconsin. *J Am Acad Dermatol* 1988 (Oct) 19:729–737.

Special

Medicaid patients' use of HMO services

Herbert F. Laufenburg, MD, Milwaukee

In October 1984 the state Department of Health and Social Services established the Preferred Health Maintenance Organization (HMO) Enrollment Initiative, a mandatory HMO plan for Medicaid-Aid to Families with Dependent Children (AFDC) recipients residing in Dane and Milwaukee counties. This study examines the effect of the plan over two years on a family practice residency center that contracted with the state to provide primary care for 2,500 medical assistance recipients. Data showed that visits by Medicaid patients increased from 1.1 per person per year in 1982 to 3.5 in 1986 and that the percent of visits by these patients compared to total visits to the center increased from 20.8% in 1982 to 56% in 1986. This increased use by Medicaid patients was accompanied by a decline in visits by fee-for services patients. The potential effects on patient care and resident education are discussed. *Wis Med J* 1989;88:19–21.

MORE THAN 20 YEARS have elapsed since the enactment of federal and state medical assistance programs, which were designed to improve health care services to low-income persons. As health care delivery has changed dramatically, Medicaid programs have also changed; a recent development in the program has been the introduction of prepaid delivery.

In 1984 the state Department of Health and Social Services introduced the Preferred Health Maintenance Organization (HMO) Enrollment Initiative,[1] a plan mandating the enrollment of Medicaid-Aid to Families with Dependent Children (AFDC) recipients in Dane and Milwaukee counties into one of the state's approved HMOs. The stated purpose of this requirement was to "improve the management of health service and to provide disincentives for unnecessary and excessive utilization and associated costs, while maintaining comprehensive health services of adequate quality."[1]

The state's mandate was of immediate concern to the St Luke's Family Practice Program, because it was faced with the prospect of losing 1,800 Medicaid patients whose care was provided at the Family Practice Center (FPC). While this care was episodic at the time, the program could ill afford to lose this volume of patients without the risk of compromising the educational opportunities for residents in an ambulatory setting. To protect this patient base, we felt obliged to become part of the HMO program.

The concept of HMO health care delivery was not new to the residency program at the time the state presented its mandate, but actual experience with its operation was negligible. We were somewhat encouraged, however, by a report by Hoft and Glasner,[2] which said that involvement with an HMO "was to serve as a source of patients for teaching and research, to generate additional revenues and an increased source for education."

Effective Oct 1, 1984, we entered into a contractual agreement with the state designating the Family Practice Center as the primary provider for 2,500 Medicaid recipients.

The enactment of the Preferred HMO Enrollment Initiative provided the means and opportunity for us to monitor and document use of the system by enrollees, who are required to come to the FPC for their medical care. No longer may they self-refer, but must pass the gatekeeper—the primary care provider—to gain entry into the health care delivery system. This rather dramatic shift from a self-referral to a gatekeeper structure permitted us to study use of the health care system by a relatively small number of patients whose financial obligations for health care were provided by the state.

Method

This study was conducted at an 18-resident family practice residency center, a community hospital-based program affiliated with a major medical college. The material reviewed for this article covered the period Oct 1, 1984, through Dec 31, 1986. Data from 1976 to 1982 were included for comparison. The purpose of this study was to examine use of services by Medicaid recipients, who had voluntarily enrolled or were assigned to the FPC under the terms of the Preferred HMO Enrollment Initiative, and to evaluate this use on the family practice residency program.

The data, which were collected daily, recorded total visits by *all* patients to the FPC. These visits were then separated into those by the Medicaid patients from the effective date of the contract and those made by others for the same period. Visits made by Medicaid patients in 1982 (pre-HMO) were also noted. The year 1982 was chosen because it was con-

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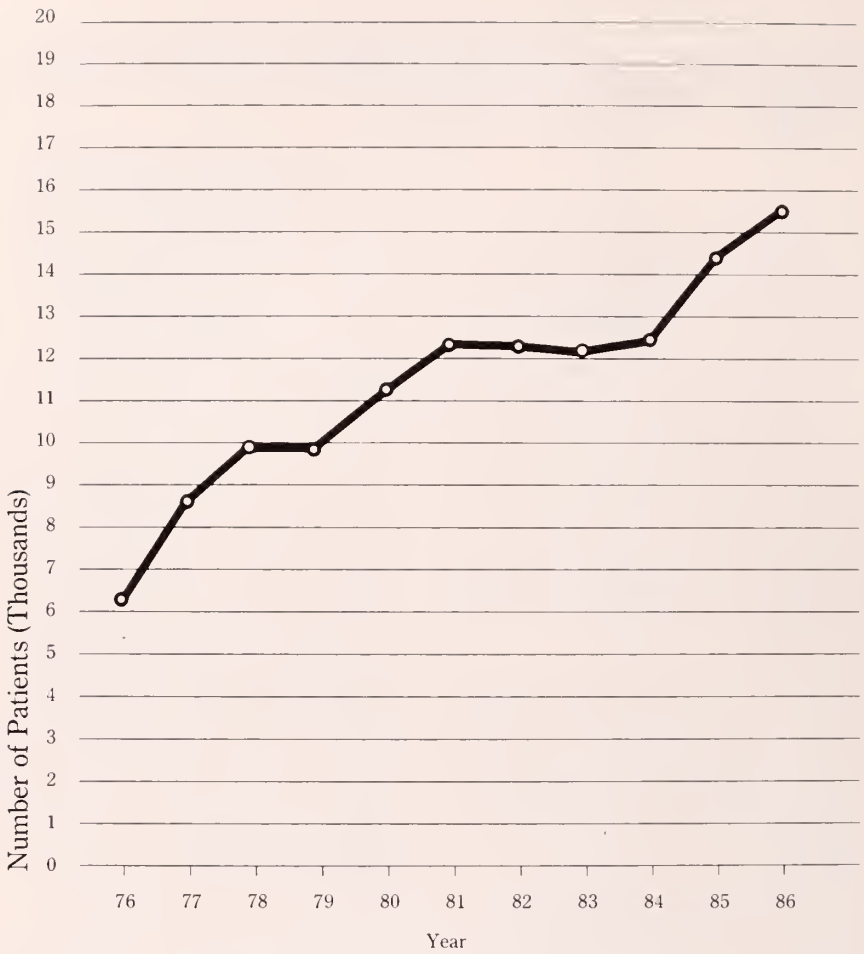

Family Practice Center patient visits for the past ten years.

sidered a representative year and was one for which data were most complete. The reader should keep in mind that care at that time was fragmented and it was impossible to determine how many visits may have been made to other providers.

Results

The data on visits by all patients to the FPC for 1976 to 1986 are shown in the Figure. The gradual increase from 1976 through 1981 paralleled growth in the program from 12 to 21 trainees. The plateau reached in 1981 remained relatively stable until 1985, when growth again occurred; we attributed this increase to the state's mandate that Medicaid recipients see us for their care.

Table 1 shows total visits to the FPC by all types of patients including those receiving Medicaid. Some 2,560 visits by Medicaid patients came from a pool of 1,409 persons and accounted for 20.8% of total use. The Medicaid patients accounted for 1.1 visits per year per patient.

Table 1.—Visits to family practice center for 1982	
Total visits by all patients	12,332
Visits by Medicaid recipients	2,560
Number of patients receiving Medicaid	1,409
Percent of use by Medicaid Patients	20.8

Table 2 presents data from 1985 and 1986 and compares them to 1982 figures. Use by the study group (Medicaid recipients) climbed from the 20.8% in 1982 to 53.6% and 56% in 1985 and 1986, respectively. Total visits to the FPC at the same time rose from 12,300 in 1982 to 14,442 in 1985 and 15,591 in 1986. During that same period, Medicaid visits increased from 2,560 in 1982 to 6,292 in 1985 and 8,733 in 1986. Fee-for-service visits declined over the same period. The average number of visits per person per year for the Medicaid population was 1.1 in 1982; it escalated to 3.5 visits per person per year in 1986, a 29.3% increase.

Discussion

As an academic institution involved in the training of family physicians, we have come to recognize that the growth and acceptance of prepaid medical care programs are a reality and that they do have a significant effect on residency training programs. The Preferred HMO Enrollment Initiative made it necessary for the residency program to become involved to:

- preserve a sufficient patient base for residency teaching and research;
- provide the necessary experience for trainees in the methods of prepaid health care delivery;
- increase the sources of revenues needed to offset the potential decline in governmental or institutional support or both; and
- improve the delivery of health care services to a segment of the population whose previous health care was fragmentary.

For the most part, our purpose has been accomplished. Our experience has not, however, been without concerns and frustrations. There has been a financial risk as well; while there does not seem to be any precise agreement as to the average or optimum number of members in an HMO, according to Brown, "it appears that less ambitious plans may be possible with as few as 5,000."[3]

Table 2.—Comparison of visits and percent of use by all patients

	Total all visits	Total visits by Medicaid patients	Total visits by non-HMO patients	Percent of use
1982	12,300	2,650	9,740	20.8
1985	14,422	6,292	8,130	43.6
1986	15,591	8,733	6,858	56.0

The resources at the FPC did not permit us to accept more than 2,500 Medicaid recipients without a danger of compromising resident education and patient care.

We anticipated an increase in use among Medicaid patients, at least during the initial enrollment phase, mainly due to the requirement that these patients now needed to come to one primary provider for care and needed to pass through the FPC for this. We did not expect that use would escalate from 1.9 visits per person per year to the 3.5 figure and that this increase would come from 19% of the center's active patient population. National figures show an average of 2.7 visits per patient per year.[4] The Medicaid recipients accounted for more than half of the patient visits, and the fee-for-service visits demonstrated a dramatic decline.

It can be argued that the HMO patients were receiving benefits from improved and mandated continuity of care due to the gatekeeper effect of the HMO. This enhanced care, however, was provided at the expense of the fee-for-service patients, some of whom were lost as resident teaching cases. Residents were, therefore, placed in the situation of seeing a relatively small segment of the patient base over and over and of being unfamiliar with the more broad-based group of patients. The data from the FPC support our belief that 2,500 Medicaid enrolles are using our services more frequently than the average and that:

- the increased use of these ambulatory services is related to the gatekeeper effect—patients whose care was previously randomized are now funneled through the FPC for all of their health care;
- there has been a decline in fee-for-service patients due in part to overcrowded schedules that denied them ready access to the FPC;
- a system designed to generate revenues through cost containment may be financially constraining because overuse of the system depletes the capitated revenues;
- resident education may be compromised by increased service requirements; and
- a generation of welfare recipients has placed increased demands on the limited resources of the FPC.

Conclusion

The most important objective of the family physician must be to provide the highest standard of care, even in the shadow of cost containment and the changing health care delivery system. Every residency program training family physicians needs to project this philosophy.

Quality care should be available to all, with no one particular group dominating the health care delivery system such as we have found in our study. The solution to our particular dilemma rests in patient education, improved triage, and additional personnel and physicians. While withdrawal from the state's HMO initiative is an alternative, it is not practical and would defeat the program's need for maintaining an adequate patient base. The ultimate solution is, perhaps, a multifactorial one as mentioned above, so as to preserve resident education, adequate patient volume and flow, and above all quality care. We are directing our efforts to the solution and hope that programs faced with similar circumstances can benefit from our experience.

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Medical Writing Contest

The annual Wisconsin Medical Journal Medical Writing Contest was created by the State Medical Society in 1987 to introduce young and future physicians to the importance of scientific publishing and to recognize the best and the brightest among Wisconsin's residents and medical students. The complete rules are listed below. Non-winning papers are also considered for publication in the Scientific section of the *Wisconsin Medical Journal.*

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- *Content:* depth of analysis, continuity of discussion supporting thesis, and feasibility of conclusions.
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Depositions: preparing for battle

Physicians who are faced with a malpractice suit should be aware that an important battle may be fought before they ever face the jury. The deposition process lays the groundwork for the legal fight to come and in some cases may prove decisive. The defendant-physician, therefore, can be sure that, during the process, the plaintiff's attorney will be wielding some dangerous weapons from the legal armamentarium. What ground is that attorney attempting to gain? What steps can a doctor take to prepare for being placed on the firing line?

The deposition process may also provide the physician with the first look at his or her own attorney in action. How can the doctor evaluate the lawyer's effectiveness? And under what circumstances should the physician seek a new legal champion?

These and other issues were addressed in a recent issue of *Orthopedic Surgeon's Legal Letter*. The following is an edited version of an interview between *Legal Letter* columnist Don Harper Mills and Melvin E. Ehrhardt, MD, JD, of Bloomington, Ill, author of *Malpractice Depositions: Avoiding the Traps*.

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Mills: Dr Ehrhardt, do you have any bottom-line advice for physicians about handling the deposition process?

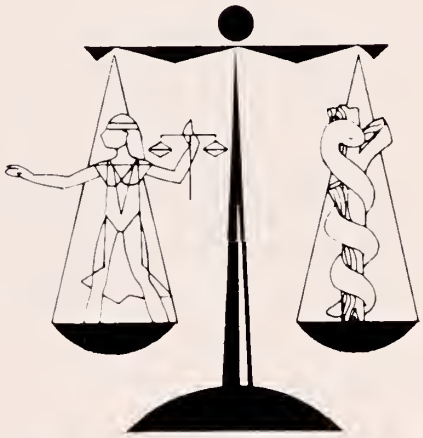
Ehrhardt: Yes, prepare ahead of time. I often hear about attorneys who say, "Just show up at the courtroom half an hour early and we'll run over a few things. You don't need to prepare, because you're just going to be asked a few questions." That's bad advice. Those attorneys may have handled so many similar cases that the experience is routine for them, but it's not routine for the physician.

Mills: Do you think many attorneys who are experienced in malpractice defense fail to prepare the defendant adequately?

Ehrhardt: I do. They think it's too time-consuming. But asking a physician to walk into the courtroom without any preparation is asking for trouble. The doctor won't know how to handle the questions and may end up saying something that weakens the defense.

Mills: How should the defense lawyer prepare the physician?

Ehrhardt: There are four basics the lawyer should cover. First, he or she should explain the underlying legal theory of the case to ensure that the doctor understands the larger picture and doesn't let something slip.



Second, the lawyer should point out that, during the deposition taking, the opposing attorney will be trying to gain all the information he or she can to support the plaintiff's case. Third, the lawyer should list the questions the plaintiff's attorney will probably ask. An experienced defense lawyer will be able to predict the opponent's stand and thus the information he or she will be seeking. Finally, a defense lawyer who has done enough homework should describe what approach—hostile, cool, tricky—the plaintiff's attorney typically takes toward defendant physicians during the deposition process.

Mills: What preparatory steps should physician defendants take on their own?

Ehrhardt: Physicians should be sure they are well-versed in the relevant medical material, including the alternative theories and the medical knowledge current at the time of the disputed incident. Most doctors have little difficulty in this regard.

What they have more trouble with are the confrontations with and insinuations by the plaintiff's attorney. And they often don't realize that they will be allowed during the deposition process to answer only the questions asked by the opposing attorneys and that they may not be able to present their arguments until the trial. This can be very upsetting to the unprepared physician.

Mills: I hear many doctors saying, "If only I can tell my side of the story in the deposition, the lawsuit will be dropped."

Ehrhardt: Physicians may believe their actions were completely defensible and that a clear explanation will resolve the problem. But, of course, it won't and may only provide additional ammunition for the plaintiff.

Mills: Why?

Ehrhardt: Because it may tip off the plaintiff's attorneys about the defense's theory.

Mills: What traps should the physician look out for when preparing for the deposition?

Ehrhardt: The plaintiff's attorney may repeat an answer with slightly different wording and ask whether that is what was meant. An unskilled defendant will often say yes, thereby agreeing with the opposing attorney's altered meaning. Instead, the physician should reiterate his or her own wording. Another tactic by the opposing attorney is to cut the physician off so that the record only contains half a sentence. The physician will be absolutely infuriated, of course, because he or she has no recourse at that point. Later, however, during the redirect examination, a good defense attorney will say, "Doctor, the opposing attorney cut you off in the middle of an answer. What was it you meant to say?"

Mills: One of your best points is that plaintiff's attorney can determine during the deposition whether the doctor will be a good witness who can think under pressure and, thus, whether he or she is likely to impress a jury.

Ehrhardt: Exactly. Deposition taking is more than just a way to find out the facts. It's a means of weighing your opponent. If the physician stands up well during rigorous cross examination, the plaintiff's attorney is more likely to settle the case out of court or to drop it. Again, this is another strong reason for the physician to be well-prepared before the deposition process.

Mills: How much should physicians study their records before the deposition is taken?

Ehrhardt: In general, deposition taking is not a memory contest, so the physician need not remember exactly, say, the date something happened. The defendant has the right to say, "Can I refresh my memory and look at the records?" But it's probably not a good idea to do this too often because the physician may appear forgetful or unconcerned. And the plaintiff's attorney may ask the doctor point-black to describe what he or she remembers without looking at the records. So the physician should be sure to know the record well.

Mills: Another point you make is that the deposition process provides the physician with a good opportunity to evaluate his or her attorney. Can you elaborate?

Ehrhardt: It may be the first time the physician has talked extensively with the attorney provided by the insurance carrier, so it's a good opportunity for the physician to sense how the lawyer is preparing the case, whether he or she is knowledgeable, and whether their personalities mesh.

Mills: Under what circumstances do you suggest that a doctor think about getting a different lawyer?

Ehrhardt: A switch is indicated if the attorney isn't familiar with the details of the case, hasn't prepared a defense, or isn't willing to help prepare the physician. And a change is mandatory if the lawyer is putting someone else's interests ahead of the physician's. For example, the attorney may be advancing the case of one defendant to the detriment of a second. Or the attorney may be serving the interest of the insurer rather than the physician. Ethically, lawyers who are paid by insurance companies are required to represent the defendant first and their employer second. But the attorney is going to get another case from the insurance company and will probably never get further work from the physician.

Mills: What steps should a physician take when contemplating a switch?

Ehrhardt: Contact the insurance carrier and ask whether it has used the attorney before, what his or her track record is, and why that person was chosen. If the answers are unsatisfactory, the physician can ask the insurance company to provide another attorney.

Mills: Do you have any closing thoughts for our readers?

Ehrhardt: The basic principle is to be involved with your case and keep up with what's going on. Instead of accepting everything your attorney says as gospel, think about your case critically. You, as the litigant, have more to lose than anyone, including your lawyer.

The deposition process is adversarial, even though the two lawyers will shake hands and smile at each other. The attorney sitting opposite your table is your enemy, and you'd better hope that the one sitting next to you is your friend.

SMS to sponsor loss prevention seminar

The threat of a medical malpractice lawsuit is an almost constant worry for many physicians. The AMA estimates that most physicians today have a one-in-four chance of being sued, and it has been estimated that staff actions are a factor in one out of ten suits.

"Malpractice Prevention—Strategies for the Medical Office," a special one-day workshop sponsored by the SMS, aims to present physicians with practical information to help them prevent misunderstandings with patients and avoid becoming the victim of a successful medical malpractice lawsuit. The workshop will be presented by Practice and Liability Management Consultants, a California consulting company specializing in health care practice management and malpractice prevention, and is designed for physicians and their key office staff. The instructors are qualified professionals with backgrounds in clinic and hospital management and loss prevention. In addition, a special segment concentrating on Wisconsin statutory and case law will be presented by an experienced Wisconsin medical malpractice defense attorney.

Program highlights include: an overview of medical professional liability trends; legal issues; communications as an underlying factor in malpractice; collections, billing and insurance; informed consent and patient education materials; medical records—the key to any malpractice defense; malpractice cases related to office system weaknesses; a practical, pragmatic approach to risk reduction in office systems; and office risk management.

The registration fee is $150 for SMS members or their staff and $225 for nonmembers. The fee includes lunch and a specially designed workbook for use at the workshop and as a reference guide.

The SMS designates this continuing medical education activity for 6 credit hours in category 1 of the Physician's Recognition Award of the AMA. The SMS is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.

Registration begins at 8 AM, with the program beginning at 8:30 and concluding by 4 PM. Telephone registrations will not be accepted. Cancellations must be received by the SMS in writing at least three weeks prior to the seminar to obtain a refund. Confirmation letters and maps will be mailed two weeks after receipt of the registration. For further information, please contact the Medical Policy and Practice Division at 1-800-362-9080 or 608-257-6781, extension 135.

Please complete a registration form for each participant. Since space is limited, early registration is recommended.

Loss Prevention Seminar Registration Form (please print)

Return with your check made payable to: State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701.

Name _____ Title _____

Clinic/Organization _____

Address _____

City _____ State _____ Zip Code _____

Telephone ( )_____ Are you an SMS member? ☐ Yes ☐ No

Amount enclosed $_____

Please check the site you are interested in. If your preferred site is filled, may we switch your registration to the second site? ☐ Yes ☐ No

Date	Location	Site	Preference
3-29-89	Milwaukee	Ramada Inn	☐
3-30-89	Appleton	Paper Valley Inn	☐

02/WMJ

Medicare: questions and answers

Q. We received a radiology profile with a letter from Medicare which said we will be reimbursed for radiology services based on the new radiology fee schedule because we are a multi-specialty clinic. We do not, however, have a radiologist on staff. We perform the technical component of the x-ray and send the film out to be read. Are we still subject to the radiology fee schedule? Also, we are a non-participating clinic and because Medicare determined we are subject to the fee schedule we did not receive MAACs for our radiology services on our regular profile. What should we charge for our radiology services beginning Jan 1, 1989, so we are not violating our MAAC?

A. Medicare was instructed by the Health Care Financing Administration to assume that all multi-specialty clinics have a board-certified or board-eligible radiologist on staff providing or supervising radiology services and are, therefore, subject to the radiology fee schedule. In your case, you should have signed and returned the letter you received with the radiology fee schedule back to Medicare, letting them know you do not have a radiologist on staff. This should have been done by Dec 31, 1988.

Also, you should request your MAAC's in writing from Medicare's Freedom of Information Unit right away. In the meantime, you may either hold your radiology billings until you receive your MAACs, determine your own MAACs based on the calculation below, or bill your 1988 MAACs.

1989 Maximum Allowable Actual Charge (MAAC)			
Step 1:	Determine your 1988 MAAC. Call it "A." If you don't have a 1988 MAAC for a service go to step 2.	A	_____
Step 2:	If you don't have a 1988 MAAC for a service, use the 50th percentile of customary charges for those physicians who were nonparticipating at the end of 1988. Call it "B."	B	_____
Step 3:	Determine 115% of the current (1989) prevailing charge for nonparticipating physicians. Call it "C."	C	_____
Step 4:	(a) If "A" is blank go to step 7. (b) If "A" is equal to or greater than "C" go to step 5. (c) If "A" is less than "C" go to step 6.		
Step 5:	The 1989 MAAC is 101% of "A." *Stop.*	MAAC	_____
Step 6:	The 1989 MAAC is the higher of: (1) 101% of "A" _____ or, (2) "A" plus ½ of the difference between "A" and "C" _____	MAAC	_____
Step 7:	The 1989 MAAC is the higher of: (1) 101% of "B" _____ or, (2) "B" plus ½ of the difference between "B" and "C."	MAAC	_____

Q. One of the incentives to participate in 1989 is that carriers will begin forwarding claims for participating providers to supplemental insurers when a beneficiary assigns his or her right to benefits under a Medicare supplemental policy to a participating physician. When and how will Medicare implement this change?

A. At press time, WPS–Medicare had no guidelines from the Health Care Financing Administration on how to implement this policy. We will keep in close contact with Medicare and advise participating physicians in the *Medigram* when we receive an update.

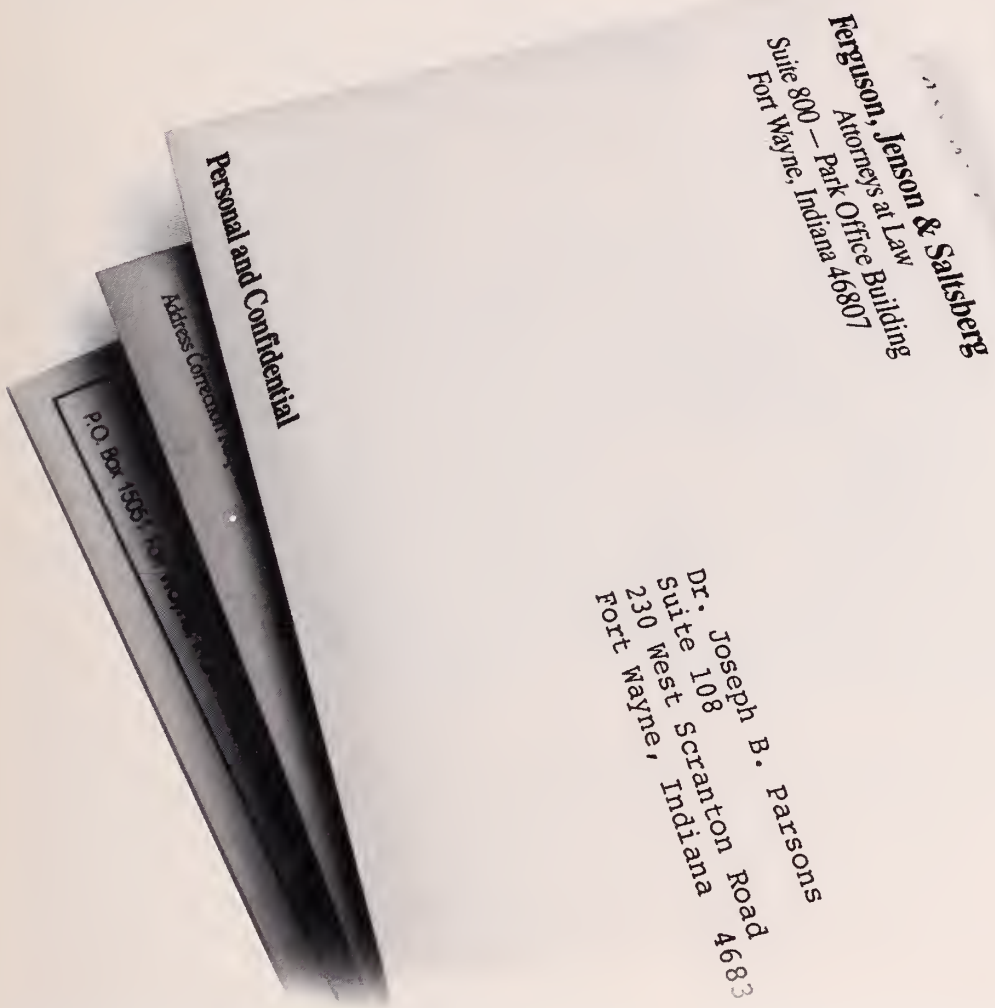
Tom Adams chairs SHIP Advisory Council

Thomas L. Adams, secretary-general manager of the SMS, was recently elected chairman of the State Health Insurance Plan (SHIP) Advisory Council. He was appointed to membership on the council by the governor last month. The council is charged with overseeing the implementation of three pilot programs for the uninsured created by the legislature during the last session.

Discount typewriters

SMS Services recently renewed an agreement with Modern Business Machines to provide SMS members with IBM electronic typewriters at a special price. For more information about the discount program, contact Noreen Krueger at SMS Services.

Crisis in black and white.



Your personal crisis may be waiting in the morning mail. If so, you'll want the best professional help. You'll want a Medical Protective General Agent.

Professional liability coverage is our only business. And we've been providing it for almost 100 years. Our agents live in the territories they serve so they understand the local legal climate. And with the extensive resources of the home office Law Department to draw from, they're always ready to answer your questions or give advice.

Someday it may be you against a negligence charge. When that day comes and your professional reputation is on the line, you're going to want all the help you can get. To make sure you have it, contact your Medical Protective General Agent today.

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SMS and WPS-Medicare to sponsor a new Medicare seminar

Medicare regulations and guidelines are complex and can be difficult to understand. It's essential to interpret these regulations and guidelines correctly and to stay on top of changes to ensure claims are submitted properly. The State Medical Society of Wisconsin and WPS–Medicare are cosponsoring a *new* Medicare program called "Medicare Part B—UPDATE 1989" for physicians and their office staff. This full-day program will focus on:

- Understanding physician reimbursement through the use of profiles;
- Understanding the politics of Medicare—an update on the RBRVS, catastrophic coverage, not medically necessary requirements and mandatory assignment;
- Identifying problems with MAACs;
- Knowing when patients should be charged for Medicare-denied services;
- Reducing delays in Medicare secondary payor claims;
- Completing elective surgery disclosure forms more efficiently.
- Using the Freedom of Information Unit;
- Expediting inquiries by understanding how the Medicare processing system works.

This program features presentations from SMS and WPS staff who have years of Medicare experience. Participants will receive an updated reference manual for use at the seminar and back in the office.

Registration is at 8:30 AM, with the program beginning promptly at 9 and concluding by 4 PM. The fee of $60 per person includes lunch, refreshments, and a manual. *A reduced fee of $45 is offered on registrations postmarked no later than Feb. 3, 1989.* Register early to receive this discount. Please complete a registration form for each participant. Cancellations must be received by the SMS in writing one week prior to the seminar to obtain a refund, and telephone registrations will not be accepted. Confirmation letters and maps will be mailed two weeks after the receipt of registration.

For further information, please contact the SMS Medical Policy and Practice Division.

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ARMY RESERVE OFFERS NEW FINANCIAL INCENTIVES FOR RESIDENTS IN ANESTHESIOLOGY AND SURGICAL SPECIALTIES

If you are a resident in Anesthesiology, Orthopaedic Surgery, or General Surgery including Neurosurgery, Colon/Rectal, Cardiac/Thoracic, Pediatric, Peripheral/Vascular and Plastic Surgery, the Army Reserve has a new and exciting opportunity for you. The New Specialized Training Assistance Program will provide you with financial incentives while you're training in one of these specialties.

Here's how the program can work for you. If you qualify, you may be selected to participate in the Specialized Training Assistance Program. You'll serve in a local Army Reserve medical unit with flexible scheduling so it won't interfere with your residency training, and in addition to your regular monthly Reserve pay, you'll receive a stipend of $678 a month.

You'll also have the opportunity to practice your specialty for two weeks a year at one of the Army's prestigious Medical Centers.

Find out more about the Army Reserve's new Specialized Training Assistance Program. Call (collect) your U.S. Army Medical Department Reserve Personnel Counselor:
Major Paul A. Deneson, Jr., 312-433-0365.

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Nominees for SMS offices: 1989

Kermit L. Newcomer, MD
Nominated for president elect for 1989–1990.

Dr Newcomer is chairman of the SMS Task Force on Health Care for the Uninsured, as well as a member of the Commission on Health Planning, the Committee on Health Care Quality, Costs and Utilization and the School Health Committee's Medical Advisory Board to the Wisconsin Interscholastic Athletic Association. His past service includes SMS delegate and chairman of the Commission on Physician Manpower and Distribution. He has also served on the executive and Trane HPP operating committees of the La Crosse County Medical Society.

Certified by the American Board of Internal Medicine, Dr Newcomer is a staff physician at the La Crosse Lutheran Hospital, an American College of Physician Executives fellow and regent, and a member of the American Group Practice Association's board of trustees, executive committee, and delegation to the AMA.

Dr Newcomer graduated from Western Reserve University, and served a rotating internship and residency at the Walter Reed General Hospital. From 1963 to 1966, Dr Newcomer served in the US Army.

Roger L. von Heimburg, MD
Nominated for president elect for 1989–1990.

Dr von Heimburg is chairman of the SMS Board of Directors and of the SMS Blue Ribbon Task Force on Alternatives to the Tort System, and a former president of the Brown County Medical Society.

Certified in surgery, Dr von Heimburg is a member of the medical staffs at Bellin Memorial Hospital and St Vincent Hospital, both in Green Bay. He is also president elect of the American College of Surgeons' Wisconsin Chapter and a member of the State Board of Health Care Information.

Dr von Heimburg graduated from Johns Hopkins University School of Medicine, served an internship at Johns Hopkins Hospital and a fellowship at the Mayo Clinic, where he completed his residency.

1989 ANNUAL MEETING • STATE MEDICAL SOCIETY OF WISCONSIN
AT THE MECCA, MILWAUKEE (Hyatt Hotel) • APRIL 13–15

Richard G. Roberts, MD, JD
Nominated for speaker of the House of Delegates for 1989–1991.

Dr Roberts has been speaker of the House of Delegates since 1987. He is also a member of the Executive Committee, the Board of Directors, the Blue Ribbon Task Force on Alternatives to the Tort System, the Risk Management Subcommittee, and vice chairman of the Medical Liability Committee. His past service includes membership in the SMS Strategic Planning Committee, the Reference Committee on National Issues, and vice chairman of the Hospital Medical Staff Section.

A diplomate of the American Board of Family Practice and the National Board of Medical Examiners, Dr Roberts is an assistant professor in the University of Wisconsin Medical School's Department of Family Medicine and Practice. He is also a fellow with the American Academy of Family Physicians and the American College of Legal Medicine. Dr Roberts is an active staff member at the University of Wisconsin Center for Health Sciences and the St Mary's Hospital Medical Center in Madison.

Dr Roberts graduated from the George Washington University School of Medicine, and completed his residency at the UCLA–Santa Monica Hospital Medical Center.

John J. Foley, MD
Nominated for treasurer for 1989–1990.

Dr Foley has served as SMS treasurer since 1981 and as a member of the Board of Directors from 1972 to 1981. He is currently treasurer and a board of directors member for SMS Services, Inc.

Certified by the American Board of Surgery, Dr Foley is an assistant clinical professor of surgery at the Medical College of Wisconsin. He is also a fellow with the American College of Surgeons, a past president of the Milwaukee Academy of Surgery, and a member of the Milwaukee Surgical Society.

Dr Foley graduated from the Stritch School of Medicine in Chicago, and served his internship and residency at the Milwaukee County General Hospital. From 1957–1959, he served in the US Air Force.

John D. Riesch, MD
Nominated for delegate to the AMA for 1990–1991

Dr Riesch has served as an SMS delegate to the AMA since 1987, and as alternate delegate from 1979 to 1986. He is a former member of the SMS Commission on Mediation and Peer Review and House of Delegates Nominating Committee. He was president of the Waukesha County Medical Society in 1973–1974, a member of the Milwaukee Academy of Surgeons, the Wisconsin Surgical Society, the American College of Surgeons, and a member of the Medical Society of Milwaukee County.

Certified by the American Board of Surgery, Dr Riesch is assistant clinical professor of surgery at the Medical College of Wisconsin, and has been affiliated as a general surgeon with the Community Memorial Hospital in Menomonee Falls, Elmbrook Memorial Hospital in Brookfield, St Joseph's Hospital in Hartford, Waukesha Memorial Hospital in Waukesha, and West Allis Memorial Hospital in West Allis.

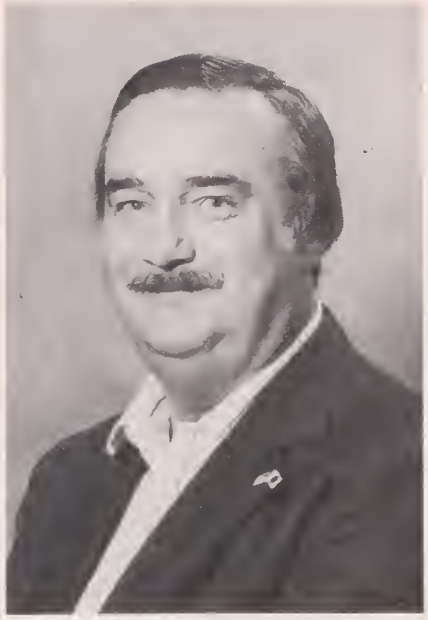
Dr Riesch is a graduate of the University of Wisconsin Medical School. He completed his internship and residency at the Milwaukee County General Hospital.

Richard W. Edwards, MD
Nominated for delegate to the AMA for 1990–1991

Dr Edwards has served as an SMS delegate to the AMA since 1982 and as an alternate delegate from 1979 to 1983. A former member of the SMS Board of Directors (then Councilors), Dr Edwards has also served as vice chairman, treasurer, and chairman of the Finance Committee. A former member of the SMS Commission on Mediation and Peer Review, he now serves on the commission's Medicaid Medical Audit Committee. Dr Edwards was president of the Richland County Medical Society in 1963 and 1980.

Certified by the American Board of Family Practice, Dr Edwards is also a member of the American Academy of Family Physicians. He has been in family practice at the Richland Hospital in Richland Center since 1961, twice serving as chief of staff. Dr Edwards is an assistant professor in the Department of Family Medicine and Practice University of Wisconsin Medical School, and in 1982 he was elected Family Physician of the Year by the Wisconsin Academy of Family Physicians.

Dr Edwards graduated from the University of Wisconsin Medical School and served a rotating internship at St Vincent's Hospital in Toledo, Ohio. From 1950 to 1954, he served in the US Navy.



Timothy T. Flaherty, MD
Nominated for delegate to the AMA for 1990–1991

Dr Flaherty was an SMS delegate to the AMA in 1984 and again in 1988. His service to the SMS also includes: president (1984–1985), executive committee, vice chairman of the Board, chairman of the Task Force on Medical Care, chairman of the Advisory Committee on Physician-owned Liability Insurance Co., director of WISPAC, and membership on the Board of Directors, Task Force on Physician Review and Discipline, Task Force on Medical Liability, Commission on Health Planning, and the Commission on Public Information. Dr Flaherty's involvement in the Winnebago County Medical Society includes the executive, public information, governmental affairs and program committees. He has also served on the boards of directors of PIC–Wisconsin and SMS Services, Inc.

Certified by the American Board of Radiology, Dr Flaherty is a clinical professor of radiology at the University of Wisconsin Health Science Center and an assistant clinical pro-

Continued on page 36

Richard H. Ulmer, MD
Nominated for alternate delegate to the AMA for 1990–1991.

Dr Ulmer has been an SMS alternate delegate to the AMA since 1983. He is also vice chairman of the SMS Board of Directors and chairman of the Finance Committee. Dr Ulmer formerly served as president of the Wood County Medical Society.

Certified by the American Board of Internal Medicine and the National Board of Medical Examiners, Dr Ulmer is a clinical associate professor of internal medicine at the University of Wisconsin Medical School. He is also a cardiologist at the Marshfield Clinic and a member of the attending staff at St Joseph's Hospital in Marshfield.

Dr Ulmer graduated from the Stritch School of Medicine of Loyola University, and completed a rotating internship and residency at the University of Chicago Hospital. From 1966 to 1968, Dr Ulmer served in the US Army Reserve.

Continued from page 35
fessor of radiology at the Medical College of Wisconsin. He is an active staff member at the Theda Clark Regional Medical Center in Neenah and the Mercy Medical Center in Oshkosh, and a consultant to the Winnebago State Hospital in Winnebago, the Riverside Community Memorial Hospital in Waupaca, and the Clintonville Community Hospital in Clintonville.

Dr Flaherty graduated from the Marquette University School of Medicine (now the Medical College of Wisconsin), served a rotating internship at St Mary's Hospital in Milwaukee and his residency at the University of Wisconsin Hospital and Clinics. Dr Flaherty served in the US Air Force from 1960 to 1963, and in the Wisconsin Air National Guard since 1963 and holds the rank of brigadier general.

J D Kabler, MD
Nominated for alternate delegate to the AMA for 1990–1991.

Dr Kabler is president of the SMS and has been an SMS alternate delegate to the AMA since 1982. A member of the Board of Directors since 1979, Dr Kabler's past service also includes chairmanships of the Joint Practice Committee and Governmental Affairs Commission. A fellow with the American College of Physicians, he is also past president of the Dane County Medical Society, the Madison Academy of Internal Medicine and the Wisconsin College Health Association.

Certified by the American Board of Internal Medicine, Dr Kabler is a professor at the University of Wisconsin School of Medicine, director of the University Health Service, an attending physician at the University Hospital and Clinics, and a consulting physician at the Veteran's Administration Hospital in Madison.

Dr Kabler graduated from the University of Kansas, and was an intern, resident and fellow at the University of Wisconsin Hospitals. From 1944 to 1945, and 1952 to 1954, Dr Kabler served in the US Navy. From 1967 to 1974, he was chief surgeon of the Wisconsin National Guard.

Jerome W. Fons, Jr, MD
Nominated for alternate delegate to the AMA for 1989–1990.

Dr Fons served as the SMS alternate delegate to the AMA during 1988. A member of the SMS since 1964, he served as a member of the SMS Board of Directors from 1981–1988, as well as a member of the SMS Committee on Medical Liability, Physicians Alliance Commission and the Task Force on Medical Liability. He is a past president of the Medical Society of Milwaukee County. He is a member of the board of directors, and a former president of PIC–Wisconsin.

Dr Fons graduated from the Marquette University School of Medicine (now the Medical College of Wisconsin), and served his internship and residency at the St Joseph's Hospital in Milwaukee.

An obstetrician-gynecologist, Dr Fons is on the medical staffs of the Trinity Memorial Hospital in Cudahy and the St Francis Hospital in Milwaukee. From 1954 to 1955, he served in the US Army Medical Corp.

District caucuses

District 1
March 14, 7:30 PM
Milwaukee Marriott, Brookfield

District 2
April 2, 2 PM
Sheraton Inn, Madison

District 3
March 20, 5 PM
New Villa Restaurant, La Crosse

District 4
March 16, 6:30 PM
Wausau Club, Wausau

District 5
March 15, 6:30 PM
Robbins Restaurant, Oshkosh

District 6
March 8, 6:30 PM
Rustic Manor, Green Bay

District 7
April 6, 6:30 PM
Lehmans Supper Club, Rice Lake

District 8
March 9, 6:30 PM
Scottie Club, Ashland

Kenneth M. Viste, Jr, MD
Nominated for alternate delegate to the AMA for 1990–1991.

Dr Viste has been an SMS alternate delegate to the AMA since 1982. He is also the immediate past president of SMS, a member of both the Board of Directors and the PartnerCare Working Group, the WISPAC Board of Directors, and chairman of the SMS Task Force on Rural Health. His past service to the SMS includes: chairmanship of a reference committee, Physicians Alliance Commission, and the Nominating Committee. He has also served on the executive, nervous and mental health, public relations, and government affairs committees of, and as program chairman for, the Winnebago County Medical Society.

Certified in neurology by the American Board of Psychiatry and Neurology, Dr Viste is a clinical assistant professor of neurology at the University of Wisconsin Medical School and an instructor in neurology at the Winnebago Mental Health Institute. He is an active staff member at the Mercy Medical Center in Oshkosh and the St Agnes Hospital in Fond du Lac; and medical director at the Oshkosh Care Center, the Neurorehabilitation Unit of the Mercy Medical Center, and the Neurorehabilitation Unit of the St Agnes Hospital.

Dr Viste graduated from Northwestern University Medical School, served a rotating internship at the Chicago Wesley Memorial Hospital, and completed his residency at Northwestern.

Specialty society news

The **Wisconsin Society of Physical Medicine and Rehabilitation** held its annual meeting Nov 16, 1988, and the following officers were elected for the year 1989: Donna D. Davidoff, MD, president; Sridhar V. Vasudevan, MD, vice president; and Keith B. Sperling, MD, secretary-treasurer. Ram P. Bhala, MD, is the past president.

The **Wisconsin Radiological Society**'s new officers for 1989 are Drs Eric B. Wilson, president; James E. Youker, president elect; Thomas D. Hinke, vice president, and Paul R. Bolich, secretary-treasurer. The spring meeting will be held at the Pioneer Inn, in Oshkosh, June 16 to June 18, 1989. The annual fall meeting will be at the Concourse Hotel, in Madison, from Oct 13 to Oct 15, 1989.

AMA Awards

The Wisconsin physicians listed below recently earned AMA Physician's Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

November 1988

Al-Wathiqui, Mahmood H., Brookfield
*Allen, Herbert M., Neenah
*Barwig, Patricia M., Milwaukee
*Bloom, Thomas D., Milwaukee
*Bont, Timothy M., Chippewa Falls
*Boudry, Marshall O., Waupaca
*Brown, Dwight H., West Bend
*Caceres, Victor, Beaver Dam
*Chessin, Henry, Appleton
Chrzan, Donald J., Milwaukee
Douglas, Eustace F., Kenosha
*Edland, Robert W., La Crosse
*Farley, George E., Milwaukee
*Fogle, Richard J., Racine
*From, Leland J., Beloit
*Garland, Thomas F., Presque Isle
*Gubitz, Richard H., Berlin
*Hamel, Peter C., Waupaca
*Hart, Loren E., Green Bay
*Hertel, Bruce F., Rhinelander
*Jochimsen, Earl H., Sheboygan
*Kidder, Thomas M., Milwaukee
*Martin, Carroll M., Kenosha
*Meeter, Urquhart L., Medford
*Nellen, James R., Greendale
*Olander, Kenneth W., Milwaukee
*Pacanowski, Roger T., Kenosha
Polacek, Michael A., Wauwatosa
*Rahimi, Abbas, La Crosse
*Randall, Emery K., Boscobel
*Rath, Edward K., Waukesha
*Richards, Marcia J.S., Milwaukee
Roh, Byung L., New Berlin
*Sager, Mark A., Madison
*Schutta, Henry S., Madison
*Shewmake, Floyd F., Kenosha
*Tange, David B., Mosinee
*Teruel, Serafin B., Beloit
Vrabec, Andrew P., Beaver Dam
*Wasiullah, Masood, Cudahy
*Weygandt, James L., Kohler
Wilson, Stuart D., Milwaukee
*Witteman, George J., Wausau
*Wong, Walter, Racine

Obituaries

John E. Connolly, MD, 55, formerly a Kenosha radiologist, died Oct 29, 1988, in Boseman, Mont. Born Aug 31, 1933, in Butte, Mont, Dr Connolly graduated from the Marquette School of Medicine, Milwaukee, and served his residency at the Little Company of Mary Hospital, Evergreen Park, Ill. He served in the US Army during the war in Vietnam. Dr Connolly was a partner in the Kenosha Lakeshore Radiology, SC, from 1971 until his retirement in 1987. Surviving are his widow, Marilyn; four sons, John E., of Milwaukee; Patrick J., of Gunnison, Colo; and Paul and Steven A., of Kenosha; and two daughters, Roberta M. and Colleen M., both of Milwaukee.

Frederick G. Hidde, MD, 78, of Sheboygan, died Nov 2, 1988, in Sheboygan. Born Oct 13, 1910, in Sheboygan, Dr Hidde graduated from the University of Wisconsin Medical School, Madison, and completed his internship at Research Hospital, in Kansas City, Mo, and his residency at University Hospital and Clinics (formerly Wisconsin General Hospital), Madison. Dr Hidde Served in the US Army Medical Corps during World War II. He was in private practice in Sheboygan from 1947 until 1973, when he became associated with the medical department of the Kohler Company. He retired in 1980. He was a member of the American College of Surgeons, American Association of Railway Surgeons, the Sheboygan County Medical Society, the SMS, and the AMA. Surviving are his widow, Josephine; two daughters, Janet Kane, of Iowa City, Iowa, and Letha Gast, of Champaign, Ill.

Richard J. Krill, MD, 66, of Whitefish Bay, died Nov 8, 1988, in Whitefish Bay. Born June 30, 1922, in Milwaukee, Dr Krill graduated from Creighton University Medical School, Omaha, Neb, and completed his surgery residency at the University of Pennsylvania and Columbia Hospital in Milwaukee. Dr Krill served on the medical staff of Columbia, St Mary's, St Anthony's, and St Michael hospitals in Milwaukee. Surviving are his widow, Jacquelyn; two daughters, Candice and Kathleen of Chicago; and five sons, Michael, Richard, Andrew, Jon, and Patrick.

Placidus Leinfelder, MD, 83, formerly of La Crosse, died Nov 9, 1988, in Iowa City, Iowa. Born Aug 26, 1905, in La Crosse, Dr Leinfelder graduated from the University of Wisconsin Medical School, Madison, and served his residency in ophthalmology at the University of Iowa. He was associated with the Department of Ophthalmology and the Eye Clinic at the University of Iowa until retiring in 1970. Surviving are his widow, Eloise; two sons, Joseph, of Moline, Ill; Carl J., of Tucson, Ariz; and a daughter, Mary E. Byrenes of Pittsfield, Massachusetts.

Meyer S. Fox, MD, 83, of Milwaukee, died Nov 15, 1988, in Milwaukee. Born Dec 25, 1904, in Russia, Dr Fox graduated from Northwestern University Medical School, and served his internship at Mt Sinai Hospital in Milwaukee. His residency was completed at Mt Sinai Hospital and the University of Chicago. Dr Fox practiced medicine in the Milwaukee area for 55 years, and was a pioneer in early research and promotion of hearing conservation programs. He also was instrumental in designing the initial formula used by state officials to determine hearing impairment and its relationship to noise exposure. He was a clinical professor at the Medical College of Wisconsin and the University of Wisconsin Medical School. Dr Fox was head of the department of ear, nose, and throat of Children's Hospital, Milwaukee, and also at Mt Sinai Hospital in Milwaukee. He was a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Sylvia; two daughters, Harriet Gordon, of Bayside, and Joanne Przeworski, of Chicago, Ill; and a son, Dr Leonard, of Anaheim, Calif.

George A. French, MD, 72, of Appleton, died Nov 17, 1988, in Appleton. Dr French graduated from the Marquette University School of Medicine, Milwaukee, and served his internship at St Elizabeth Hospital, Appleton. He served as a captain in the US Army during World War II and was awarded the bronze and silver stars. Dr French retired in 1984. He was a member of the American Academy of Family Physicians. He was a member of the Outagamie County Medical Society, the SMS, and the AMA. Surviving are his widow, Helen; four daughters, Natalie St John and Alice Keane, of Milwaukee; Julie, of Galesville, Annette, of Boston; and a son, Roger, of Milwaukee.

Clifford A. Olson, MD, 82, of River Falls, and formerly of Baldwin, died Nov 22, 1988, in River Falls. Born June 13, 1906, in New Richmond, Dr Olson graduated from the University of Minnesota Medical School and served his internship at Minneapolis General Hospital. Dr Olson was a family physician in the Hammond and Baldwin area for more than 50 years, retiring in 1986. He also served on the Medical Examining Board for the State of Wisconsin for eight years. He was a member of the Pierce–St Croix County Medical Society, the SMS, and the AMA. He was a member of the Wisconsin Academy of Family Physicians. Surviving are his son, Craig, of River Falls, and a daughter, Karen Brown, of Roseville, Minn.

Membership update

The following information is being provided from membership reports and from individual members for updating the 1988 Membership Directory as published in the August 1988 issue of the *Wisconsin Medical Journal*. Because of space limitations, address changes and phone numbers will not be included in this update, although they will be changed in the SMS membership records.

County transfers will be included when processing has been completed by the membership records staff.

Changes in practice specialties (as used by the AMA) and changes in board-certified specialties as listed by the American Board of Specialties (see August 1988 Membership Directory) are included. Practice specialties appear before the slash (/) and board-certified specialties appear after the slash.

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2 For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.

3 The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics: see **WARNINGS**.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1 Elimination of foods and medications containing potassium and of potassium-sparing diuretics.

2 Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.

3 Correction of acidosis, if present, with intravenous sodium bicarbonate.

4 Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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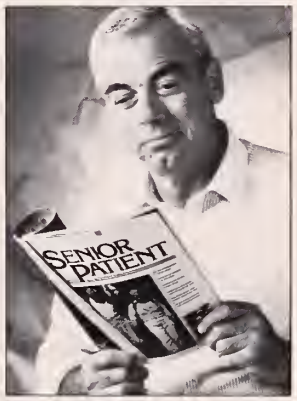

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County society news

Brown. Forty-two members were present at the December meeting of the Brown County Medical Society. Newly elected officers are: John W. Utrie, MD, president; Bruce C. Bressler, MD, president elect; Harold J. Reinhard, MD, secretary; Roger C. Wargin, MD, treasurer; Thomas V. Geocaris, MD, Patrick J. Kiefer, MD, and Raymond G. Bachhuber, MD, censors; Rolf S. Lulloff, MD, James Berner, MD, James T. Jerzak, MD, Thomas P. Koehler, MD, Herbert F. Sandmire, MD, and David M. Wineinger, MD, delegates; and Wesley E. McNeal, MD, Roderick L. Meves, MD, James V. Lacey, MD, Robert G. Kaftan, MD, and Kenneth R. Kubsch, MD, alternate delegates.

Fond du Lac. At the November meeting of the Fond du Lac County Medical Society, the guest speaker was Kenneth M. Viste, Jr, MD. Dr Viste spoke on resource-based reimbursement systems. New officers were elected and they are as follows: David M. Ebben, MD, president; Gary F. Steele, MD, president elect; Jeff A. Strong, MD, past president; Karl L. Pennau, MD, secretary; Robert H. House, MD, treasurer; David R. Bowman, MD, Carl J. Saggio, MD, and Warren M. Post, MD, censors; David R. Weber, MD, Brian C. Christenson, MD, and Elizabeth T. Sanfelippo, MD, delegates; Russell Pelton, MD, K. Alan Stormo, MD, and Jeff A. Strong, MD, alternate delegates. New members accepted are Felix Way-Keon Chu, MD; Suzanne L. Vincent, MD, and Darrell E. M. Hay, MD.

Correction

On page 53 of the December 1988 issue of the *Wisconsin Medical Journal*, under the headline of "Blue Book update," the new chairman of the SMS anesthesiology section was incorrectly identified as John R. Kruel, MD. The correct spelling is John R. Kreul, MD. The *Journal* regrets the error.

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Internal medicine. Excellent opportunity for a BC/BE internist to join a well-established, progressive practice in the suburban Minneapolis area. Competitive salary and benefits with buy-in opportunity. Contact Dan McCormick, Medical Resource Group, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; ph 612-835-5123. 2/89

Psychiatrist-chemical dependency psychiatrist interested in chemical dependency needed to join 220-physician multi-specialty group with adjacent 447-bed hospital. Position includes inpatient services for chemical dependency unit with full range of outpatient chemical dependency services available. Behavioral medical department is presently staffed by seven psychiatrists, one child/adolescent psychiatrist and two psychologists. New clinic building recently completed. Gundersen Clinic, Ltd, is located in La Crosse, Wisconsin, a progressive community of 50,000 built along the shores of the Mississippi River amid scenic bluffs, the city offers excellent recreational facilities. Numerous educational and cultural opportunities are provided by an expanding university with undergraduate and graduate degree programs, and a private liberal arts college. Excellent pension program, no investment required. Service organization. Write: Philip J. Dahlberg, MD, Chairman, Personnel Committee, Gundersen Clinic, Ltd, 1836 South Ave, La Crosse, WI 54601. An Equal Opportunity Employer. 2/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

RATES: 50¢ per word, with a minimum charge of $20.00 per ad. BOXED AD RATES: $25.00 per column inch. *All ads must be prepaid.*

DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg,* copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Pediatrician, OB/GYN, psychiatrist, family practitioner, ophthalmologist. Growing 16-physician multi-specialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity after one year. Come grow with us! Contact Mark Nymo, MD, Indianhead Medical Group, Ltd, 1020 Lakeshore Drive, Rice Lake, WI 54868; ph 715-234-9031. p2/89

West Bend, Wisconsin. Seeking emergency department director and full-time physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation, malpractice insurance provided and benefit package provided. Contact: Emergency Consultants, Inc, 2240 S Airport Road, Room 36, Traverse City, MI 49684; ph 1-800-253-1795 or in Michigan 1-800-632-3496. p2/89

Family practice. BC/BE family practitioner for a progressive and well-established, busy growing practice in the western suburbs of Minneapolis. No Peds or OB. Competitive salary and benefits with buy-in opportunity. Contact Dan McCormick, Medical Resource Group, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; ph 612-835-5123. 2/89

Physician's Assistant. Milwaukee Medical Clinic is seeking a physician's assistant for a collaborative practice with two physicians in the Internal Medicine Department. Certified candidates with two-plus years of experience are encouraged to send a resume to Don Ritt, Director of Human Resources. Milwaukee Medical Clinic is a multi-specialty, physician-owned, out-patient clinic with 80-plus physicians and over 600 employees. In 20 years of providing quality care, the clinic has developed a solid reputation in the community. Continued growth has led to expansion of services, including the addition of satellite clinics and walk-in clinics. The successful candidate for this physician's assistant position will join two internists expanding their practices at our main site on the north side of Milwaukee. The clinic currently employs several physician's assistants who have established practices and are proven contributors to the clinic's success. The city of Milwaukee is alive and growing! Professional people are moving here to support the growth of small and medium-sized technical industries. Our larger manufacturers are regaining strength, and yes, the breweries continue their proud traditions. If you are interested in joining a growing Clinic in a growing metropolitan area, send your resume, indicating salary needs, to: Drina M. Reed, Human Resources Department, Milwaukee Medical Clinic, 3003 W. Good Hope Road, Milwaukee, WI 53217. Milwaukee Medical Clinic is an equal opportunity employer, M/F/V/H 1–2/89

Excellent opportunity for BC/BE obstetrician-gynecologist in beautiful central Wisconsin. Excellent professional environment and growth potential. Competitive salary and fringe benefits. Send CV and inquiries to: Plaza Gynecology & Obstetrics, SC, 122 North Wilshire Drive, Stevens Point, WI 54481. 2–4/89

Family Practice (BC/BE). Excellent opportunity to join a very busy, five-physician family practice group in south central Wisconsin. Long established group. City of 15,000 located on lake in excellent recreational area. Guaranteed first year salary with opportunity for ownership after one year. Competitive fringe benefits. Contact C. Burchardt, Medical Associates of Beaver Dam SC, 1200 N. Center St, Beaver Dam, WI 53916; ph 414-887-7101. p1–3/89

Lake Winnebago, Wisconsin area. Seeking director, full-time and part-time emergency physicians for low-volume 60-bed hospital. Attractive compensation, full malpractice insurance coverage and benefit package available. Contact: Emergency Consultants, Inc, 2240 S Airport Road, Room 36, Traverse City, MI 49684; 1-800-253-1795 in Michigan 1-800-632-3496. p2/89

Colorado family practice. Busy practice in growing community seeks third BE/BC partner. Good salary, malpractice, and benefits. Close to Denver and Colorado Springs. Contact Richard F. Pebler 719-775-2367, Box A Limon, CO 80828. p2/89

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700. 12tfn/88

Family practice opportunities in a group setting. Located in a family oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, President & CEO, Clintonville Community Hospital, 35 North Anne St, Clintonville, WI 54929; ph 715-823-3121. p12/88;1–5/89

Physicians Exchange

continued

Two full-time emergency physicians, board-certified or eligible, are needed to staff Level II Emergency Department with annual volume of 30,000. Residents rotate through department making excellent teaching opportunity. Compensation package exceeds 120,000/yr. Flexible scheduling, 36 hr/wk, 1656 hr/yr. Partnership available in one year. Contact Sunil Ahuja, MD, FACEP, Medical Director, Emergency Services, Sinai Samaritan Medical Center, 2000 W Kilbourn Ave, Milwaukee, WI 53233; ph 414-937-5989. 12/88;1–2/89

West Bend, Wisconsin, General Clinic, a 20-physician multispecialty group is seeking additional B/C, B/E physicians in **Family Practice, Pediatrics, OB/GYN, Internal Medicine, Urology, Dermatology,** and **ENT.** First-year salary and benefits guaranteed. Corporate association after one year. Located in a family-oriented, economically strong small city surrounded by four-season recreational and scenic Kettle Moraine area 30 miles north of metropolitan Milwaukee. Contact Hans W. Schmelzling, Administrator, 279 S 17th Ave, West Bend, WI 53095; ph 414/338-1123. 7tfn/87

Aspen Medical Group, an independent, multi-specialty group with eight clinic locations in the Minneapolis/Saint Paul metropolitan area, seeks associates in Family Practice, Internal Medicine, Obstetrics/Gynecology, Orthopedic Surgery. Competitive earnings, excellent benefits, reasonable call and clinic responsibilities. Reply: Maureen Reed, MD, Aspen Medical Group, 1295 Bandana Blvd, North, Suite 310, Saint Paul, MN 55108 or call 612-642-2707. 12/88;1–2/89

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

BC/BE General Internist to join 26-MD multispecialty group with four internists, one nephrologist and one gastroenterologist. Top salary first year, full incentive thereafter. Central Wisconsin university town with drawing area of 80,000. Send CV to Dr John Gauder, Rice Clinic, SC, 2501 Main St, Stevens Point, WI 54481, or call collect 715/344-4120. 12tfn/87

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multispecialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Robert A. Braastad, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. P3–5/89

Career opportunity for qualified Emergency Room physician. Our group covers two hospital emergency rooms and an active walk-in clinic in southeastern Wisconsin. Full fringe benefit package and flexible scheduling offered. Interested parties contact John W. Linstroth, MD, 1201 Sherwood Lane, Caledonia, WI 53108; ph 414-835-7761. 8tfn/88

Retired physician seeks locum or part-time work, preferably rural area. Available on short notice. Phone 715-667-3654. p2/89

Northern Wisconsin
Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

NEW PHYSICIANS FOR WISCONSIN
is seeking
- Family Physicians
- Pediatricians
- Orthopedic Surgeons
- Internists

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7–12/88;1–6/89

Otolaryngology—Brainerd, Minnesota. Join 20 MD multi-specialty clinic. No capitation. No start-up costs. Two hours from Minneapolis. Beautiful lakes and trees; ideal for families. Call collect/write Curtis Nielsen 218-829-0354 or 4901. PO Box 524, Brainerd, MN 56401. p1–2/89

Beloit Clinic, SC, an expanding multispecialty group in southern Wisconsin college town is seeking a pulmonologist, radiologist, allergist, ophthalmologist, and orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J. F. Ruethling, Administrator, 1905 Huebbe Parkway, Beloit, WI 53511; ph 608-364-2200. 10–12/88;1–3/89

Dermatology—Brainerd, Minnesota. Join 20 MD multi-specialty clinic. No capitation. No start-up costs. Two hours from Minneapolis, Beautiful lakes and trees; ideal for families. Call collect/write Curtis Nielsen 218-829-0354 or 4901. PO Box 524, Brainerd, MN 56401. p1–2/89

Northern Wisconsin
Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Physicians Exchange

continued

Family practice. Four-physician group seeks fifth MD (BC/BE) to join growing practice located within one hour of Madison and Milwaukee. Full benefits, first year salary guarantee. One hundred and two bed community hospital located within one block from office. Send CV to Mrs Betty J. Parish, Clinic Mgr, PO Box 49, Watertown, WI 53094; ph 414-261-5204. ltfn/88

Physicians wanted to join multi-specialty clinic in central Wisconsin. Family/general practitioner, internal medicine/cardiologist, radiologist, and OB/GYN specialist. Generous salary and fringe benefits. If interested, please contact Rod McLean, Administrator, Neillsville Clinic, SC, 216 Sunset Place, Neillsville, WI 54456; ph 715/743-3231. p1–3/89

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Come join me. Ambulatory care. Orange County, California. Good Hours. Great wages. Excellent amenities. Gerald J. Derus: 714-496-8641. 11tfn/88

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Eagle River—Great opportunity for two BC/BE family practice physicians to join well-established practice. Guaranteed annual income and future partnership available. For more information, send resume to Judy Harris, Recruiter, UW Office of Rural Health, 810 University Bay Dr, Madison, WI 53705 or call collect 608/263-7933. 1tfn/88

Miscellaneous

Practice available. Excellent Minnesota practice for sale. General practice currently grossing over $500,000 annually in lovely, suburban community. Retiring physician will introduce and assist in transition. The only one of its kind in the community, this solo practice is close to a 300-plus-bed, full-service hospital. This medical-surgical clinic includes x-ray facilities, a lab and a full computerized patient record and billing system. Various financing options available. For complete details, contact John Reeves at 1-800-354-4050 toll-free; or write to CompHealth, Attn: John Reeves, 5901 Peachtree Dunwoody Road, #C-65, Atlanta, GA 30328. p2/89

For rent. Doctor's office suite, Cudahy, Wis. In a four-office suite professional building. The other three suites are occupied by a general surgeon, internist, and OB/GYN. For information call 1-414-481-6558. 2tfn/89

Unsecured signature loans for physicians. $5,000 to $60,000. Use for any purpose including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments. Up to six years to repay. No prepayment penalties. Call 1-800-331-4952, MediVersal, Department 356. p2–3/89

PRIMARY CARE PHYSICIANS

West Suburban Hospital Medical Center is currently seeking highly skilled Physicians in Primary Care to meet the needs of our growing service area. Practice opportunities exist for new and existing practices, solo or small group practices, partnership or associate arrangements.

Our 372-bed not-for-profit acute care teaching hospital is affiliated with Chicago's finest medical schools. Located in the western suburb of Oak Park, we are just 20 minutes from downtown Chicago. For consideration, please forward your curriculum vitae to: **Director of Physicians Relations**

West Suburban Hospital Medical Center
Erie at Austin
Oak Park, Illinois 60302

Medical Meetings—Continuing Medical Education

February 24–26, 1989 (Illinois): 45th Annual Midwest Clinical Conference, Chicago Hilton and Towers, Chicago. Approved for up to 17½ credit hours in Category 1 of PRA/AMA. Info: Midwest Clinical Conference, Chicago Medical Society, 515 North Dearborn St, Chicago, IL 60610; ph 312/670-2550, ext 209. 1–2/89

June 16–18, 1989: Wisconsin Radiological Society, Pioneer Inn, Oshkosh. g2–5/89

June 17–24, 1989: Eighth Annual Cornhusker Canadian Clinical Conference, Wolverine Lodge, Lynn Lake, Manitoba, Canada. Fee: $150. Info: Sharlene Knippelmeyer, RN, BS, Education and Staff Development, Lincoln General Hospital, 2300 South 16 Street, Lincoln, NE 68502; ph 402-473-5638. 2/89

JUNE 21–24, 1989: Wisconsin Academy of Family Physicians, Radisson Hotel, La Crosse g11tfn/88

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

FOR LISTING of other meetings see the July 1, 1988 issue of the *Journal of the American Medical Association:* Continuing Education Opportunities for Physicians for period August 1988 through December 1988.

continued

July 20–22, 1989: Wisconsin Society of Obstetrics & Gynecology 1989 Annual Meeting, at Radisson Hotel, La Crosse. Info: WSOG, 850 Elm Grove Rd, Elm Grove, WI 53122. g1–7/89

SEPTEMBER 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. 12tfn/88

SEPTEMBER 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay, Wisconsin. g11tfn/88

October 13–15, 1989: Wisconsin Radiological Society Annual Meeting, Concourse Hotel, Madison. g2tfn/89

Continuing Medical Education, University of Wisconsin Medical School, Madison, Wisconsin

Schedule of Conferences/Workshops March 1989–June 1989

March 7–14: *CME Study Tour*, Puerto Vallarta, Mexico
March 16–17: *Comprehensive Management of Chronic Respiratory Problems*, The Sheraton Inn and Conference Center, Madison
April 6–8: *13th Annual Ophthalmology Current Concepts Seminar '89*, The Concourse, Madison
April 8: *Internal Medicine Update*, University of Wisconsin Hospital and Clinics, Madison
April 21–22: *Anxiety Disorders: Evaluation and Treatment*, Holiday Inn East, Madison
April 26–28: *Cardiac Rehabilitation*, Grand Hotel, Milwaukee
April 27–28: *Controversies in Family Medicine*, The Radisson Inn, Madison
May 5–6, *OB/GYN Conference*, The Edgewater, Madison
May 18–20: *12th Annual Sports Medicine Symposium*, The Concourse, Madison
June 22–24: *Nosocomial Infections*, Holiday Inn East, Madison

All courses qualify for AMA Category 1 credit.

For further information Cathy Means, Program Coordinator, Continuing Medical Education, 2715 Marshall Court, Madison, WI; ph 608-263-6637. 2/89

1989 CME Cruise-Conferences on medicolegal issues and risk management. Caribbean, Mexico, Alaska/Canada, China/Orient, Scandinavia/Russia, Mediterranean, Black Sea, Trans Panama Canal. Approved for 24–28 CME Category 1 Credits (AMA/PRA) and AAFP prescribed credits. Excellent group rates on finest ships. Prescheduled in compliance with IRS requirements. Information: International Conferences, 189 Lodge Ave, Huntington Station, NY 11746; ph 800-521-0076 or 516-549-0869. p2–4/89

AMA

JUNE 18–22, 1989: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 3–6, 1989: Interim House of Delegates, Honolulu, HI.

JUNE 24–28, 1990: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 2–5, 1990: Interim House of Delegates, Orlando, FL.■

State Medical Society of Wisconsin

Dates and locations of ANNUAL MEETINGS 1989–1993

All meetings will be held in Milwaukee at the Milwaukee Exposition and Convention Center and Arena (MECCA) and the new Hyatt Regency as the headquarters hotel, unless otherwise indicated.

1989—April 13–15
1990—April 26–28: Green Bay Convention Center, Embassy Suites
1991—April 18–20: Milwaukee Wyndham Hotel
1992—April 23–25
1993—April 15–17: La Crosse Convention Center, Radisson

Meetings days will be Thursday and Friday; the first session of the House of Delegates will convene on Thursday, the second and third on Friday. Scientific programming will be on Friday and Saturday.
Further information: Commission on Continuing Medical Education, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701. Local Telephone: 257-6781; toll-free in Wisconsin: 1-800-362-9080.

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Research saves lives.

American Heart Association
WE'RE FIGHTING FOR YOUR LIFE

Wisconsin Specialty Society Meetings: 1989

Wisconsin Orthopaedic Society, May 5, 1989, American Club, Kohler.

Wisconsin Chapter: American Academy of Pediatrics, May 22, 1989, Milwaukee.

Wisconsin Academy of Family Physicians, June 21–24, 1989, Radisson Hotel, La Crosse.

Wisconsin Society of Obstetrics & Gynecology, July 20–22, 1989, Radisson Hotel, La Crosse.

Wisconsin Society of Anesthesiologists, Sept 8–10, Lake Lawn Lodge, Delavan.

Wisconsin Society of Internal Medicine, Sept 14–16, 1989, Embassy Suites, Green Bay

VASOTEC®

(ENALAPRIL MALEATE | MSD)

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions*.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy — Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies in pregnant women. VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 298 patients.

Hypertension: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

Heart Failure: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest; pulmonary embolism and infarction; rhythm disturbances, atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION), prostate hypertrophy.

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects*.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions*.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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v. 88, no. 3

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Contents

March 1989 Vol. 88 No. 3

Opinions

3 *President's page:* Preference, process and policy
by JD Kabler, MD, Madison

4 *Secretary's report:* It's your profession: Get involved
by Thomas L. Adams, Madison

6 *Letters:*
Loss prevention article wins praise
by John Walsh, JD, Madison
Pathologists remain united with medical profession
by Raymond C. Zastrow, MD, Milwaukee
Right on
by Donald W. Vangor, MD, Baraboo
A call to action
by Marrison Schroeder, MD, Shorewood

7 *Soundings:* Bits and pieces
by Douglas S. Diekema, MD, Madison

Scientific

11 Brucellosis: An unusual cause of a child's fever of unknown origin
by Michael J. Chusid, MD, Robert W. Perzigian, DO, W. Michael Dunne, PhD, and Eli A. Gecht, MD, Milwaukee

13 *Clinical briefs:* Diseases of the external ear
by James J. Holt, MD, Marshfield

14 Progress report: Neonatal screening for cystic fibrosis in Wisconsin
by Elaine Mischler, MD, Philip Farrell, MD, PhD, Theodore Bruns, MD, Michael Rock, MD, Audrey Tluczek, RN, MS, Holly Colby, RN, Cathy McCarthy, RN, David Hassemer, MS, Ronald Laessig, PhD, and Norman Fost, MD, MPH, Madison and Milwaukee

18 Dietary flouride supplemenets for children:
What a physician needs to know
by Rhys B. Jones, DDS, MS, Madison; Steven M. Levy, DDS, MOH, Iowa City; and Raymond A. Kuthy, DDS, MPH, Columbus, Ohio

Socioeconomic

25 Wisconsin's durable power of attorney
by Sally Wencel, JD, SMS staff attorney

30 The changing role of physician assistants
by Rebecca Lehman, PA, Neenah

32 *Loss prevention:* Coping with the stress of being sued
by Michael C. Reineck, MD, West Bend

Organizational

35 Task force unveils plan for the uninsured

35 SMS calls State Bar study misleading

36 Three retire from *WMJ* service

36 Annual Meeting events: 1989

40 County society news

42 Obituaries

Our cover: "Pediatrics," by Aaron Bohrod. This painting is owned by the SMS Charitable, Educational and Scientific Foundation and is on display at the Fort Crawford Medical Museum in Prairie du Chien.

Wisconsin Medical Journal

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State Medical Society of Wisconsin

Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal.*

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President's page

Preference, process and policy

AMONG LAWYERS there is a saying that "hard cases make bad law." Among medical associations, hard decisions make "bad" policy. "Bad" in the sense that someone or some group within or without the association will dissent fervently. Occasionally, dissent grows to dispute and, exceptionally, acrimony which, in turn, breeds angry rhetoric, suspiciousness and allegations of ignoble motives, ethical lapses, moral blindness, favoritism, elitism or willful ignorance. We can all recall examples of such doleful disputes elsewhere which decayed into vituperation and policy paralysis.

Fortunately, our State Medical Society—through our committee system, extensive communications with and from our physician members and our elected directors and delegates (representatives)—has been nearly free of excesses of dissent. Learning what the majority of our members expect and want as policies, procedures and programs *before* decisions are made has much to do with our good experience. Periodic surveys of all our members, correspondence with county medical societies, visits by SMS officers and directors to county societies, and hospital locker and lounge conversations help identify the preferences of the profession. The hard part remains: The process of determining the will of the majority while respecting the rights of the minority in a pluralistic Society in which graduation from a medical school somewhere, licensure in Wisconsin and commitment to our patients is all we have in common. Consider the diversity of age, national origin, sex, race, religion, specialty, and practice site and style among our members. Given these differences, agreement is remarkable, consensus impossible and compromise inevitable.

An issue recently brought to the Society's Board of Directors is illustrative. The question under consideration was whether to support a change in the "medical neglect" phrase in the state child abuse statute, especially as it applies to the appropriate treatment of severely impaired neonates. Moral, medical, religious, political, ethical and legal questions were involved. Three committees of the Society had pondered the matter and did not agree among themselves. Letters, personal and telephone visits, presentations and representations were received from member and non-member physicians. Ethics experts and lawyers (from inside and outside Wisconsin) submitted position papers. After prolonged discussion, a majority of the directors voted to support the current statute unchanged. The process was correct but was the decision *right?*

JD Kabler, MD

Yes, no and maybe—where you stand depends on where you sit.

There will be other hard decisions which must be made: prolonging life vs delaying death, rationing of care, animal rights, fetal tissue research, and abortion (again). Deciding among these hard choices will test our capacities for temperance and tolerance. The philosopher Kant once wrote, "time and time again it is necessary to make a decision upon a basis sufficient for action but insufficient to satisfy the intellect." Physicians will recognize this situation; they face it every day.

Secretary's report

It's your profession: Get involved

THE MEDICAL SOCIETY YEAR is drawing to a close as we approach the 1989 sessions of the House of Delegates, April 13–15, in Milwaukee.

Members of the House will act on numerous policy items that literally set the Society's agenda for the coming year. Everything from SMS fiscal affairs, legislative priorities, and special task force reports are debated and acted upon by the House. Every member of the Medical Society is welcome to attend sessions of the House and may testify on any committee report or resolution simply by appearing at the appropriate reference committee. This year, reference committees are scheduled to begin meeting at 1 PM on April 13 in the Hyatt Hotel.

Clearly, the issues before the House this year are critical. I urge you to participate in the district caucuses, discuss your concerns with your local delegates, and, if possible, attend the meeting. This policy-making body exists to directly represent you. Please participate.

While Medical Society politics are important, we also have begun contending with the politics of two increasingly similar legislative bodies, the 101st Congress and the 89th Wisconsin Legislature. Both bodies have casts of characters similar to 1988, although Wisconsin added a new US senator in Herb Kohl, and there are 15 new representatives in Madison. Thanks to the efforts of WISPAC and involved individual physicians, we have many friends on both sides of the aisle. There are, however, a handful of legislators who hold key positions in the majority party and who are roadblocks to SMS initiatives. We'll need every one of our allies, Republican and Democratic, to make any further progress.

Health care issues will be at the forefront in both Madison and Washington. At the state level, mandatory assignment, health insurance for the uninsured, re-regulation of hospitals, and potentially for the first time, physicians and other providers will be considered by the legislature. In addition, the SMS will be attempting to enact a $250,000 cap for non-economic damages in medical professional liability cases, recommendations of the Task Force on Rural Health Care, "duty to warn" legislation and other issues that have been raised by committees, commissions and task forces.

In Washington, the AMA, with SMS' help, will wrestle with physician payment methodology issues, RBRVS vs other ideas (ie, DRGs, capitation, vouchers), while fighting continued cuts in the Medicare program, student loan issues, aid to graduate medical education and numerous other issues. In short, it is going to be a long tough year in both cities.

Thomas L. Adams

Increasingly, the issues being debated have the potential to fundamentally affect our medical care delivery system and the way you practice medicine. Your individual involvement is crucial to medicine's successful presentation of its side of the story. Physicians can be proud of their lobbying teams in Madison and in Washington, but there is no substitute for interchange between legislators and their physician constituents. To this end, in the coming year, you will be presented with a variety of opportunities to make your voice heard in the legislative process, facilitated by the public affairs and communications divisions. Meet one-on-one with your legislator; join a key contact network; write your newspaper editor; give a speech to a community group. We will work with you to present your story to lawmakers and the public.

As with House of Delegates, get involved. It is your profession; we need you to make certain that it can weather the political winds of change that blow unceasingly in both cities.

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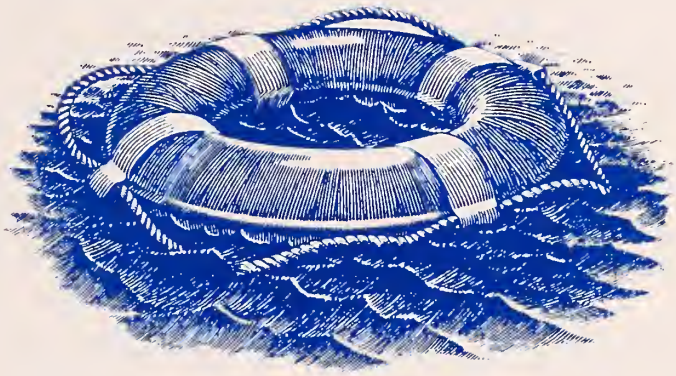

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Letters

Loss prevention article wins praise

TO THE EDITOR: Dr Michael Reineck should be commended for the excellent article he wrote on the subject of loss prevention in the December 1988 issue of the *Wisconsin Medical Journal*. At a time when there seems to be so much misinformation on the subject of medical malpractice claims, Dr Reineck's article provides physicians with solid, responsible ideas on loss prevention and control of claims.

I was particularly pleased to see his comments regarding encouraging physicians to cooperate with attorneys in reviewing malpractice claims and, where necessary, testifying in malpractice cases. The participation of competent physicians, willing to properly screen cases and fairly advise lawyers of whether negligence has occurred, is an important component of both professions' efforts at preventing the filing of meritless claims.

Congratulations, Dr Reineck, on a fine article.

—John Walsh, JD, president
State Bar of Wisconsin

Right on

TO THE EDITOR: Dr Kabler's editorial in the December 1988 *Wisconsin Medical Journal* was right on! I found it an insightful summary of health care politics in America in the late 20th century. It deserves a lot of dissemination and discussion. Unfortunately, it probably won't happen. Too many of us today are accustomed to life in the fast lane, fast food, quick answers and instant gratification. Keep up the good work.

—Donald W. Vangor, MD
Baraboo

A call to action

TO THE EDITOR: The two editorials ("The ethics of progress" by Wayne J. Boulanger, MD, and "What's our excuse?" Jeffery H. Lamont, MD) and the news brief that followed ("Paying the bill for firearm injuries") in the January 1989 issue of the *Wisconsin Medical Journal* were highly pertinent and impressively articulated. Let each of us participate actively in effecting the changes that are so important and necessary.

—Marrison Schroeder, MD
Shorewood

Pathologists remain united with medical profession

TO THE EDITOR: In the December 1988 *Wisconsin Medical Journal*, Dr Russell Lewis wrote an editorial called "United we stand." His clarion call for unity at this remarkable time should echo throughout all of organized medicine.

Unfortunately, there is an inaccuracy which is a widespread misconception and needs clarification. The editorial states, ". . . . (if) *pathologists* or radiologists want to make separate deals with the government on payment, we are divided . . ." (emphasis added).

Organized pathology has not cut any separate deals and is not now looking to do so. Other specialty organizations have distanced themselves from the mainstream of organized medicine but not pathology. Confirming evidence to this statement abounds but two examples are immediately evident:

1. At the Stark Subcommittee hearings on DRGs for RAPs, and later at the Physician Payment Review Commission, my testimony on behalf of pathology was to follow the lead of the AMA and await the Harvard RBRVS. Dr Jim Sammons, of the AMA, praised organized pathology for supporting the federation in this effort.

2. At the recent Dallas AMA meeting, the AMA technical staff was helpful and supportive of pathology's statistical evaluation of the impact of the Harvard study—hardly the treatment to be expected for an organization which would pull away from organized medicine.

Pathology continues to toll hard in the fields of organized medicine since we are committed, as is Dr Lewis, to "get behind the AMA and SMS to act for the profession as a whole."

—Raymond C. Zastrow, MD
Milwaukee
Chairman of the Council of Professional and Legislative Affairs, College of American Pathologists

SMS Membership roster available

The 1988–89 SMS membership roster, recently published in the August issue of the *Wisconsin Medical Journal*, is available from the SMS at a cost of $25. For more information, contact the SMS Division of Communications at 1-800-362-9080 or 608-257-6781.

Soundings

Bits and pieces

Douglas S. Diekema, MD
Madison

I'M THE PEDIATRIC RESIDENT on call tonight. With a few quiet moments before my next patient is placed in an exam room, I wander through the emergency room. Several people have gathered in the trauma room. They remind me of runners before a race, moving about in nervous anticipation of some impending event. About to turn away, I see a gurney turn the corner and enter the room. Several other people rush past me. Captivated by the frenzied activity, I continue to linger outside the door. A few words carry my way: "Eighteen years old . . . head injury . . . unconscious . . . belly tap."

I breath a small sigh of relief—If she'd been under 17, she would have been my patient. My relief, however, slowly gives way to sadness. While I know nothing of this young woman's life, my imagination suggests a tale of laughing and dancing and loving. I return to the pediatric exam room. My patient, another child with a painful ear, is ready.

An older man leans over me and asks if he may use the phone. I look up from my note and push the phone his way. As his conversation progresses, I feel increasingly uncomfortable, like an intruder. He's talking with his wife: "She was on the back of her boyfriend's moped . . . No, they hit the car . . . I don't know, he went to one of the other hospitals . . . All I know is that she's still alive. No one's saying anything else . . . I've tried. The nurses, the doctors—they won't say anything more. She's on her way to the operating room now." He hangs up and thanks me. I nod and, at the same time, wonder what tragedy has entered the life of this man.

I scribble a few more details on an ER note. Nothing much to see tonight beyond a few kids with sore ears and throats. One broken finger. I'm reminded that it's Halloween as a nurse flits by, trailing the folds of her ghostly costume. "More business," she says. A child who fell and complains of a sore arm. We order an x-ray and sit down to wait for the film.

Walking into radiology, I spy a pirate working in the file room. I turn the corner and walk toward the emergency room viewing board, hoping to find a film of my patient's arm. I pass the orthopedic resident on call and nod a greeting. The film I need is already displayed on the board. It looks negative, but I'd like to get a second reading from the radiology resident. I sit down to wait. Just then he and the orthopedic resident enter the room, talking:

"Subdural actually, she's in the OR now."

"How's she doing?"

"Not good."

"Will she live?"

"I doubt it."

"How's her friend?"

"Apparently OK. He's got a pelvic fracture, but he'll live."

"Was she wearing a helmet?" I ask. Knowing, as I ask, the answer to my question. I've heard it before.

"Of course not."

The rest of the evening is quiet—unusual for Halloween. At 11 o'clock, I head for home. Once there, I'll try to sleep between phone calls. As I drive, however, I can't coax my thoughts away from the events that I'd witnessed from afar this evening.

My imagination fills in the missing pieces, and the intense anger and frustration I feel surprises me. I feel this way each time I hear of a student's young life cut short because of an accident on a moped or bicycle. The story always seems the same: they weren't wearing a helmet and failed to obey traffic laws. I try to shake these feelings by telling myself that she wasn't even my patient, but as I crawl into bed I am haunted by the image of a girl who lies dying—or dead—across town.

It's 6:10 AM. I'm in my car after another night of trying to sneak a few hours of sleep between phone calls. Driving toward the hospital, I pull up at a nearby convenience store to buy a paper and some coffee. Knowing in my heart the end of last night's story, yet wishing to confirm it, I turn to the metro section. There it is—a four line article at the bottom of page 3: ". . . . died shortly after surgery."

I sip my coffee and start the car. I want to cry, yet find myself unable to do so. With only bits and pieces of this young woman's story to grasp, I can't yet feel the tragedy I've witnessed. Besides, there's really not time for tears. I'll soon have patients waiting in the clinic.

Dr Diekema is a third-year resident in pediatrics at the University of Wisconsin Hospital and Clinics in Madison. Reprint requests to: Douglas S. Diekema, MD, University of Wisconsin Medical School, Department of Pediatrics, H4/4 CSC, 600 Highland Ave, Madison, WI 53792. Copyright 1989 by the State Medical Society of Wisconsin.

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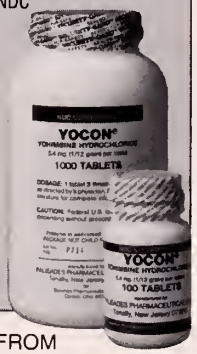

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Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS
Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

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OVERDOSAGE
There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION
The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

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Brucellosis: An unusual cause of a child's fever of unknown origin

Michael J. Chusid, MD, Robert W. Perzigian, DO, W. Michael Dunne, PhD, and Eli A. Gecht, MD, Milwaukee

A 3-year-old Wisconsin native with the symptoms of chronic fever, hepatosplenomegaly, and inability to walk, was found to have an elevated anti-Brucella titer. Blood and bone marrow cultures grew *Brucella melitensis*, biotype 3. This infection was likely acquired during a trip to Mexico several months earlier during which the child had ingested raw milk. The patient's father was also discovered to have brucellosis. Both were successfully treated with antibiotic therapy. Although brucellosis has been almost totally eradicated in the United States, in the appropriate setting it should be considered as a possible cause of fever of unknown origin in a child. *Wis Med J* 1989:88(3);11–13

ONCE COMMON in the United States, brucellosis has almost disappeared as a clinical entity to be considered in the differential diagnosis of a patient with fever in this country, particularly of a child. Those cases of brucellosis which continue to occur here are seen primarily as an occupational hazard of persons involved in meat processing operations.[1] Only 106 cases of brucellosis were reported in the United States in 1986.[2] In the mid-1960s, fewer than 3% of cases of brucellosis occurred in children less than 10 years old, and that percentage may have dropped further, as the total number of cases of brucellosis continues to fall.[3] The entity has not, however, completely disappeared in children, and we recently diagnosed brucellosis in an American-born child who had been sick for several weeks and who presumably acquired his infection during a visit to Mexico.

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Case report

A 3-year-old Hispanic boy was brought to the Children's Hospital of Wisconsin emergency room because of his refusal to walk. For the previous two months, his mother had noted that he felt constantly feverish. During this period, he had also become less active, had a decreased appetite, and lost 6 lbs. There were no other symptoms until the day of admission when he would not walk.

In the emergency room, he was noted to be a thin, pale, non-toxic boy who was playful but refused, or was unable, to walk. His temperature was 38.9 °C. Positive physical findings included a liver palpable 3 cm below the right costal margin and a firm spleen 5 cm below the left costal margin. Passive movement of all joints was normal. His neck was supple and neurologic examination was unremarkable.

Initial laboratory evaluation included a WBC of 9700 cells/uL with 15% PMNs, 6% bands, 47% lymphocytes, 3 monocytes, 1 basophil, and 18% reactive lymphocytes. His hemoglobin level was 10.5 g/dL. An ESR was 27 mm/hr. A chemistry panel was unremarkable except for an SGOT of 293 and an SGPT of 254. Radiographs of his chest, pelvis, and both legs were normal. A lumbar puncture revealed 22 cells (8% PMNs, 74% lymphocytes, 18% mononuclear cells) with a glucose of 36 and protein of 3.

The patient was admitted with a working diagnosis of possible osteomyelitis or septic hip. On the ward, a further history was obtained. The child was born in the United States. There was no travel outside the United States except for two trips to Mexico with his family, the most recent being about 10 months prior to hospitalization. While in Mexico, he was well except for a bout of diarrhea treated by a local physician with an injection of penicillin.

About seven months after the trip, the patient's father developed recur-

rent high, spiking fevers and was seen by three physicians, the last of whom made the diagnosis of malaria. The father was started on antimalarial therapy, without benefit, six weeks prior to his son's hospitalization. The patient's mother and sister were healthy, and the boy had no previous hospitalizations.

In the hospital, the patient had evening temperature elevations to 39 °C. He continued to refuse to walk but was otherwise comfortable. Bone scan results were normal, and a PPD was non-reactive. An abdominal computed tomography (CT) scan showed only homogeneous hepatic and splenic enlargement.

On the sixth hospital day, a serum *Brucella* antibody assay was reported as being positive for *B. abortus* at a dilution of 1/320. The patient's initial blood culture was still considered negative on the basis of gross appearance and automated infrared CO_2 detection by the Bactec 660 system (Johnston Laboratories, Cockeysville, Md). On acridine orange staining, however, it was found to be heavily laden with short bacilli. Gram stain revealed gram negative coccobacilli consistent with *Brucella*. Bone marrow and blood cultures grew *Brucella*, but CSF cultures remained negative.

The patient was begun on a course of intravenous trimethoprim/sulfametho-oxazole (TMP/SMZ, 15 mg/kg/day) for one week which was then changed to oral therapy at the same dosage for another five weeks. After four days of intravenous therapy, the patient's fever and organomegaly resolved. He became mobile and was discharged after the intravenous phase of his therapy. Repeat blood cultures on therapy were negative for *Brucella*.

Four months following start of antibiotic therapy, the patient was asymptomatic. Final bacteriologic identification of the patient's organism revealed *Brucella melitensis*, biotype 3.

Because of similar symptoms in the patient's father, a *Brucella* titer was performed on his serum which was positive at titer of 1/320. Since his blood smears were consistently negative for malarial parasites, his antimalarial therapy was discontinued, and he was treated with a course of oral tetracycline. Clinically, he responded well. The patient's mother and sister had negative anti-*Brucella* titers. Intensive questioning of the family revealed that both father and son had ingested raw milk from a neighborhood farm while visiting rural Mexico ten months before.

Discussion

This case was of interest for a number of reasons. First, it appears that this boy acquired his infection several months previously, probably through the ingestion of raw, unpasteurized milk. He appeared to have acute gastroenteritis while in Mexico. Gastrointestinal discomfort is seen in 22% of children with acute brucellosis.[4] In some patients, brucellosis may remain largely asymptomatic for many months after exposure and apparent infection.[5] The prolonged period between exposure and the appearance of symptoms may obscure the diagnosis if an appropriate history is not taken.

Second, although this patient was febrile for several weeks prior to admission, he was eventually seen by a physician because of his refusal to walk. Infections of bones and joints are quite common in patients with brucellosis, occurring in perhaps as many as 15% of all cases.[6,7] Even more common however, is arthralgia, which, in view of the negative bone scan, is presumably what our patient had. Arthralgia may occur in as many as 75% of patients with brucellosis and at times can be severe.[4,6]

Almost all cases of brucellosis in the United States are due to *B. abortus*, because of the predilection of this organism for infecting cattle.[3] Persons working in the meat processing trade become infected through inhalation of aerosolized blood or contamination with blood or other fluids.[1] *B. abortus* usually produces mild disease in infected individuals. On the other hand, infection with *B. melitensis*, which is associated with goats and which was the organism that infected our patient, usually produces more severe disease.[5,6,8]

The diagnosis of brucellosis can be difficult because its signs and symptoms are so non-specific. In Sharda's study of 200 children with brucellosis in Kuwait, more than half the children had symptoms of arthralgia, prolonged fever (longer than five weeks), or weight loss and malaise, all of which were seen in our patient.[4] Also seen in more than half of their patients were lymphocytosis, elevated liver function enzymes, and an elevated ESR—all also seen in our patient.[4]

The diagnosis of brucellosis depends upon the serologic confirmation of the disease. The serologic response to the *B. abortus* antigen used in the microagglutination assay is not species specific, however, due to cross reactivity among the capsular antigens of several *Brucella* species, including *B. melitensis*, biotype.[3,9] By the time they come to medical attention, most patients with active brucellosis have an anti-*Brucella* agglutinin titer of greater than 1/160. Care must be taken when performing this assay to be alert for the prozone effect, in which sera with very high antibody activity fail to demonstrate agglutination at high dilution. If brucellosis is seriously considered, the laboratory should be notified, so that several serial dilutions of serum can be tested.

Blood culture is the major means by which to confirm the diagnosis of brucellosis. In some studies, fewer than half the patients with clinical disease consistent with brucellosis and who had high titers of anti-Brucella antibodies grew the organism from their blood.[4] If brucellosis is suspected, isolation of the organism should be attempted, using biphasic media in specially constructed flasks. On the other hand, as seen in our patient, the organism can be isolated

from standard blood culture bottles if the laboratory is informed of the tentative diagnosis. Acridine orange may be used to stain blood cultures incubated for several days, even though there is no obvious growth. This organism can cause special problems for automated blood culture systems because its metabolism of the substrate amino acids and carbohydrates used in these systems is often too slow to exceed a threshold positive value, even with a grossly positive culture. Besides blood, bone marrow is an excellent source for growing the organism.

Most patients in whom brucellosis is diagnosed and treated do well. The most common complication is involvement of bones or joints. Cardiac involvement either as endocarditis or myocarditis is a much less common, but more serious event.[4,8] Brucellosis can also invade the central nervous system producing a meningoencephalitis or meningitis.[10,11] Our patient did have an excess number of cells present in his spinal fluid on admission, but given his lack of neurologic symptoms and the inability to grow the organisms from his CSF, we were unwilling to make the diagnosis of neurobrucellosis.

Therapy of brucellosis in children is problematic. The best described therapy in adults is with tetracycline or a combination of tetracycline and streptomycin. Because of its deleterious effect on teeth when used in young children, tetracycline is not a viable option for use in children. Therefore, the combination of TMP/SMZ is usually used. In Sharda's report, TMP/SMZ was curative in about 75% of cases of childhood brucellosis.[4] When streptomycin was added, the cure rate was 100%. In the current case, we used TMP/SMZ alone because of the availability of the intravenous preparation of the drug. It was our feeling that excellent blood levels of these agents could be achieved in this way. One week of intravenous drug therapy was followed by five weeks of oral drug therapy. At this point, several months following therapy, the patient appears to be cured.

Brucellosis is no longer frequently seen in children in the United States, but it is still found, particularly among certain population groups living along the Mexican border or traveling to endemic areas. Because of its nonspecific clinical and laboratory findings, diagnosis can be difficult unless the possibility of the disease is considered. If missed, brucellosis can cause serious and potentially fatal illness in the child.

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Clinical briefs

Diseases of the external ear canal

James J. Holt, MD, Marshfield

There are three major types of external otitis diseases which the physician may encounter. Each is treated differently.

Mechanical external otitis

Itchy ears. Excoriations of the outer ear canal and concha are noticeable. More advanced cases may result in a swollen hypertrophied ear canal. The discharge is usually watery and worse at night. Patients complain of a long history of an itchy ear and admit to the use of some form of mechanical irritation, such as vigorous rubbing of the ear, use of cotton tip applicators, keys, hairpins, etc. As the physician examines and cleans the ear, the patient commonly remarks that "it feels good, please continue."

Patient education is important. I stress the avoidance of mechanical manipulation as well as chemical irritants to the ear, such as alcohol, peroxide, hairsprays and dirty, soapy water. Milder cases respond to the use of baby oil, mineral oil, sweet oil

and Vaseline for lubrication. More severe cases may require frequent suctioning to clean the ear canal and the use of a steroid ointment, such as Kenalog Ointment 0.1%. The use of ointments, rather than creams, avoids the accumulation of the white debris from dried creams. Only the most stubborn cases require skin grafting to the ear canal. Although a superimposed infection should be appropriately treated, mechanical external otitis should not be mistaken for a bacterial infection.

External otitis

Swimmer's ear. The infected, swollen, red ear canal needs to be cleaned. Suctioning the ear is preferable to flushing. The examination and cleaning of the ear canal is usually painful in this condition as opposed to the otitis from mechanical irritation. A cotton wick, soaked in antibiotic solution, can be advanced into a swollen canal by the use of a blunt tip instrument, such as a cerumen curet. The use of antibiotic ear drops (eg, Cortisporin Otic Suspension, 4 to 5 drops, four times a day) and oral antibiotics will usually control this infection. In fungal infections, thorough cleaning of the canal and the use of an ointment, such as Lotrimin, is helpful. Since cultures may show a variety of organisms, including Pseudomonas, cultures may not be helpful. Recurrent cases may be induced by the use of mechanical irritation and the patient should be cautioned about this. It is important to examine the ear after the infection has resolved to detect a possible underlying tumor or cholesteatoma.

Necortizing external otitis

Also called malignant external otitis, this disease should come to mind when an otitis persists in spite of appropriate treatment. The other hallmarks of this disease include a diabetic patient and a pure or predominant culture of Pseudomonas. The infection has progressed from the ear canal and is actually an osteitis of the skull base. Cranial nerve involvement is common, producing facial paralysis, hearing loss, weakness of the tongue, vocal cord paralysis and aspiration.

The ear canal needs local debridement and antibiotic ear drops (eg, Gentamicin Ophthalmic Drops). Usually, six weeks of double IV antiglycoside, is used. Depending upon culture sensitivity, ciprofloxacin with or without rifamtin can be used in some cases. A variation of this disease can be seen in nondiabetic patients and may require less aggressive IV antibiotic treatment.

Your colleagues' responses to the December *WMJ* reader survey clearly called for more material on clinical technique—in fact, it was one of the top answers in the "Do you want to see more. . . . . ?" category. (Complete survey results will be reported in an upcoming issue.) Now, it's up to you to provide these brief guides to clinical care. Please submit your typewritten (limit two pages, double-spaced) stories to: *Wisconsin Medical Journal,* PO Box 1109, Madison, WI 53701.

Progress report: Neonatal screening for cystic fibrosis in Wisconsin

Elaine Mischler, MD, Philip Farrell, MD, PhD, Theodore Bruns, MD, Michael Rock, MD, Audrey Tluczek, RN, MS, Holly Colby, RN, Cathy McCarthy, RN, David Hassemer, MS, Ronald Laessig, PhD, Norman Fost, MD, MPH, Madison and Milwaukee

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WISCONSIN has been performing statewide neonatal screening for cystic fibrosis (CF), using a controlled study design, since April 1985. Because the control group will be unblinded in April 1989, it is important to provide a progress report to date and to discuss ongoing study methodology.

Determining whether newborn screening for CF is beneficial is important because CF is the most common potentially fatal, hereditary disorder of Caucasians, occurring in approximately one in 2,000 live births. This disease affects primarily the pulmonary system, gastrointestinal system and sweat glands, causing affected persons to have chronic obstructive lung disease and poor growth, related to malabsorption of protein and fat, and to produce a very salty sweat. Often, there are delays in diagnosis and referrals to compre-

hensive care centers because early symptoms of malabsorption and lung disease may be fairly nonspecific.

The development of the immunoreactive trypsinogen (IRT) assay in 1979 by Crossley et al[1] as a screening test for CF in newborns raised the possibility of mass screening for this disease. The IRT done on dried neonatal blood spots is a reasonable screening test because it is practical, adaptable to large scale screening, and relatively inexpensive.

Although usually considered beneficial, newborn screening programs may have three adverse effects: laboratory errors producing false positives and false negatives, miscommunication or misunderstanding of results, and stigmatization. It is also important in this instance to remember that no definitive data exist to establish whether early diagnosis of CF will actually prove medically beneficial or will ultimately improve prognosis.

A National Cystic Fibrosis Foundation task force, convened in 1983 to study neonatal screening, recommended further study of the reliability and standardization of the IRT method, study of time-related decline of IRT levels, performance of sweat tests on all initial positives rather than using the repeat blood sampling approach where there may be more false negatives, study of the cost-benefit relationship of screening, study of the value of early treatment related to prognosis, and evaluation of psychosocial benefits and risks of early detection.[2]

Using these recommendations, a research project was designed in Wisconsin to objectively assess the newborn screening test and determine whether it is beneficial to CF patients. The specific aims of the Wisconsin Screening Study are:

- To evaluate, improve and establish procedures for the IRT test on dried neonatal blood spots.
- To screen for four years all newborns in Wisconsin by performing a standard test on half of the population and a *blind IRT* on the other half. An early treatment via neonatal screening diagnosis group and a control group identified by age four are generated (see the methodology section for a more detailed explanation). Those in the control group receive the same care as those identified in the screened group as they come to medical attention by standard methods previously used in Wisconsin and elsewhere in the United States.
- To characterize patients with false positive tests.
- To determine the rate of decline of the IRT in both false positives and true positives.
- To assess the benefits of early diagnosis and treatment on pulmonary and nutritional abnormalities in CF.
- To assess the risks of screening, especially psychosocial problems.
- To determine whether the parents' reproductive plans are altered by screening of their newborn.
- And to evaluate the cost effectiveness of the screening program.

Methodology

To inform parents about the study and to obtain consent, each family is given a newborn screening brochure, produced by the Wisconsin Division of Health, at the time of delivery. The brochure explains that the IRT is a research test and that each family has the option to refuse screening. If the family allows blood to be drawn for the IRT test, the neonatal screening blood card is randomly placed into one of two equal groups: newborns with specimens ending in an odd identifying number are assigned to the neonatal screened group, and the others to the comparison (control) group—for which CF will be diagnosed according to usual medical practice. Those who are in the screened group will have the IRT test completed within the first month of life. Positive results are reported to physician investigators in the CF centers in Madison and Milwaukee who then contact the newborns' primary care physicians. It is recommended that the family be referred to one of the two CF centers for a sweat test by pilocarpine iontophoresis,[3] at no charge to the family, to definitively determine whether the child has CF and to obtain a repeat IRT specimen.

If the sweat test is negative, the parents are given the results and asked to complete a questionnaire which assesses the psychosocial impact of the neonatal screening process. They are asked for permission to evaluate the maternal pregnancy history and neonatal history to search for reasons for the false positive IRT result. If the sweat test is positive and the child is proven to have CF, the parents are asked if they would like to enroll their child in a comprehensive treatment protocol followed in both CF centers. This treatment plan is no different from standard practice except that it requires more frequent visits to the CF center in the first year of life (travel reimbursement is available up to $40 per trip, if needed, no physician fees are charged, and blood tests to assess nutritional status are funded by the grant).

The other half of the study population (the comparison group) have the IRT test partially performed (mathematical calculations needed to get the result are not completed) during the neonatal period. The identity of this population is kept from the investigators—*blinded*—and stored in a computer. Children referred to the CF Center in this group because of suspicion of CF, and who have a positive sweat test, will be enrolled in the same treatment protocol as the screened group if permission is given by their parents (physicians should assume that all their patients are in this group, as no one knows which newborns are in the screened group).

When children reach the age of 4, beginning in April 1989, the neonatal screening test from the control population will be computed and completed, and the results will be reported

Table 1.—Survey of hospitals* regarding use of neonatal screening brochure

	1986	1987
Responses	95/134 (71%)	103/129 (80%)
Do you have brochures?	95 Yes	103 Yes
Is brochure given to mother?	95 Yes	100 Yes 2 No
When do mothers get brochures?		
In labor	2	3
After delivery	78	88
Before discharge	6	3
Prenatal classes	2	1
Other	6	7

*Hospitals listed as having obstetrical services by the Wisconsin Hospital Association.

Table 2.—Newborns screened for CF, April 1985 to July 1987*

	Positive IRT	Negative IRT
Total	172	
Positive sweat test	25	2‡
Positive sweat test meconium ileus	3	1
Negative sweat test	110†	

*133,911 screened †False positive IRT ‡Non-meconium ileus

to the study investigators. The parents of all children with positive IRT results will be notified through their primary care physician and, we hope, sweat tested at one of the CF centers for a definitive diagnosis. Those children with a positive sweat test will also be entered into the standard treatment protocol after informed consent is obtained from their parents. Evaluation of the children in both groups between ages 4 and 7 should allow determination of the efficacy of CF neonatal screening.

Progress Report

Because the newborn screening brochure serves as the informed consent document, we conducted two surveys to ensure that hospitals were distributing the brochure to mothers at the time of childbirth. Table 2 tabulates the results and confirms the efficiency of the statewide neonatal screening system.

As of August 1988, 172 newborns have had positive IRT tests in the screened group. Table 2 describes the number of newborns screened and their categorization between April 1985 and August 1988. Neonates in this group with an IRT at the 99.8 percentile (180 ng/ml) had sweat tests at 6 weeks of age. Two newborns in the screened group initially had negative IRT results but were found to have CF based on clinical observations and a positive sweat test. One of these newborns had a sibling with CF and was, therefore, tested. The other neonate had hyponatremic, hypochloremic dehydration.

As of December 1988, there was a total of 48 subjects with positive sweat tests. Twenty-seven were in the screened group, and 21 came to the CF centers with symptoms, tested positive in a sweat test, and were, therefore, in the control group. In April of 1989 we will begin to add other children in the *blinded* half of the population to the control group when they reach age 4.

When a false positive IRT test occurred (there are about four false positives for every one true positive), medical histories of the newborns and mothers were evaluated. Data collected on this group between April 1985 and July 1987 has been completely analyzed. Study of pregnancy data revealed no increased use of alcohol or tobacco. We found no significant aberration in gestational age or birthweight. Blacks accounted for 19% of the false positives, which is surprising, because they account for only 7.3% of live births in Wisconsin. Delivery was vaginal in 75% and by Caesarian section in 25%, which is not statistically different from the general population. Seventeen percent had pulmonary diseases such as respiratory distress syndrome, transient tachypnea of the newborn and meconium aspiration syndrome, which is significantly different than the pulmonary disease occurrence rate of 4.4% determined from neonatal diagnoses during 1985–1986 at the University of Wisconsin perinatal center. As we reported,[4] there was a significant difference in Apgar scores (measure of perinatal stress) in newborns with false positive IRTs in comparison to all live births in Wisconsin. At one minute, false positives had a greater proportion of scores less than or equal to 6, when compared to all live births, at $P = .0004$ using the exact binomial test. At five minutes, the comparison was again statistically significant at $P = .0102$.

We have been following the decline of the IRT over time in the false positive group, but have not determined the point at which a repeat

blood sampling approach (a second blood test done at a certain time after the initial positive test at birth to determine the need for a sweat test) could be done and miss very few positive newborns. In looking at the IRT of 21 newborns with CF graphed over time, if a second test had been done after 28 days of age using the 99.8 percentile cutoff, at least four infants with CF would have been missed.

To assess the psychosocial impact of screening, the parents of infants with false positives were given a questionnaire. We wanted to know whether they had received adequate information at the time of learning of the IRT result, and whether they had difficulty coping between then and the time of the sweat test (3 days). We found that most parents were concerned about their newborns upon learning of the positive IRT (depression, confusion, thankfulness to learn of a problem early if it was there), but were usually relieved after the sweat test. A one-year follow-up questionnaire is planned to assess the screening anxiety of false positive families.

Discussion

The CF newborn screening project is proceeding well in Wisconsin. We have confirmed the work of others: the IRT assay can be used as a neonatal screen for CF.[5,6] It is too early for us to make any clinical comparisons of nutritional or pulmonary parameters in the screened and control groups. We need to continue screening at least until the spring of 1990, at which time we hope to have at least 40 children in each group. We will follow nutritional parameters and pulmonary function and chest roentgenogram abnormalities on children in both groups for at least ten years.

Table 1 demonstrates that families do receive the informed consent document (in the newborn screening brochure). And, as summarized at the 1987 North American Cystic Fibrosis Conference[7], justification for a randomized prospective study of the benefits and risks of neonatal screening in CF includes:

- the benefits and risks of early detection have not been established;
- serious physical and psychological harm has occurred to persons involved in screening programs which were not adequately studied prior to implementation;
- newborn screening in Wisconsin is not standard treatment, and would not occur without the funding of a randomized research design and, therefore, would be available to no one unless done in this fashion;
- the identities of those in the control group are unknown, and information is not, therefore, being improperly withheld (the screening brochure consent document states that any parent may request the IRT result, but only about 0.5% have done so); and
- the number of families who might have made reproductive decisions on the basis of screening results is sufficiently small that the state would not initiate screening on a service basis.

Summary

Primary care physicians have been very cooperative in referring screened patients to the two designated CF centers in Wisconsin—the University of Wisconsin Cystic Fibrosis Center, and the center at the Medical College of Wisconsin in Milwaukee—and their help has made this study possible. By 1990, we anticipate that meaningful clinical comparisons between the screened and control groups will be possible, and at that time we can begin to obtain some definitive answers concerning the benefits and potential risks of neonatal screening for cystic fibrosis. At this time, it would be premature to make a decision concerning the efficacy of screening for cystic fibrosis for the State of Wisconsin. It is very important that the study go to completion before making conclusive recommendations.

We are eager to meticulously document the natural history of CF by following study patients for a long time. Answers to questions concerning rate of decline of the IRT value in true positives, psychosocial risks of screening to true positives, effect on future reproductive plans, and the cost effectiveness of the screening program will not be available for at least two more years.

False positive IRT results seem to be related to perinatal asphyxia. We postulate the mechanism is ischemia in the pancreas related to hypoxia during the perinatal period leading to transient release of trypsin from the pancreas into the bloodstream.[4] Decline of the IRT result over time is of great interest because a repeat blood sampling approach would hopefully eliminate several false positives. As previously mentioned, however, at least four infants with CF would have been missed if a second blood sample had been obtained after 28 days using the 99.8 percentile cutoff. We are forced to conclude from our data that the IRT value may decrease into the normal range at follow-up on true positive patients.

We have a sense that neonatal screening for CF does not have a negative effect on families with a false positive infant. Most families are concerned about their newborns when notified of the positive IRT, but relieved by the results of the sweat test. We will continue to assess any changes in parent-child relationships or reproductive plans brought on by involvement in the study. We plan to evaluate the effect of early diagnosis in the true positive families in a follow-up study.

The ethical issues concerning the study design have been extensively reviewed by the University of Wisconsin Human Subjects Committee, the Wisconsin Children's Hospital Human Rights Review Board, the Medical College of Wisconsin Human Research Review Committee, the Cystic Fibrosis Foundation, and the National Institutes of Health.

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Dietary fluoride supplements for children: What a physician needs to know

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THE APPROPRIATE USE of fluoride remains the best defense against dental caries. This is true despite extensive efforts to develop improved methods of mechanical plaque removal, to develop chemical agents that safely and effectively reduce the cariogenic activity of bacteria, and to reduce the frequency of intake or cariogenic foods by modification of dietary practices.[1] Pit-and-fissure sealants are an important weapon in caries control,[2] but their full impact depends heavily on the ability of fluorides to control smooth surface caries. Although the mechanisms by which fluorides exert their caries-inhibiting effects are not fully understood, they are thought to include:

- Reduction of enamel solubility;
- Remineralization of early carious lesions; and
- Action on plaque bacteria.

There has been greater interest in and an understanding of the remineralization process in recent years, showing that many early carious lesions may be reversible if treated promptly and properly with fluoride.

Fluoride products are intended for use either systemically or topically. Systemic fluoride is ingested, absorbed and incorporated into developing bone and tooth structure. In contrast, topical fluorides work only locally on superficial layers of enamel and on plaque. Methods of delivering systemic fluorides in the United States include community water fluoridation, school water fluoridation, and dietary fluoride supplements. Topical fluorides may be applied professionally or self-applied. They include fluoride solutions and gels (applied in trays or with a toothbrush or applicator), fluoride dentifrices, and fluoride mouth rinses. Topical benefits also result from drinking fluoridated water or from chewing fluoride tablets.

Discussions of these methods of delivering fluorides are contained in a special section in the September 1986 issue of the *Journal of the American Dental Association* (*JADA*), entitled "A Guide to the Use of Fluorides for the Prevention of Dental Cares,"[3] and in the American Dental Association's *Accepted Dental Therapeutics*.[4] A comprehensive fluoride program should include a systemic form and may include one or more topical forms. The systemic and topical modes should not be used in lieu of each other, but should complement each other.

Several studies have found that the majority of physicians and dentists reported prescribing dietary fluoride supplements for some of their child patients.[5-9] Studies also have shown, however, that some practitioners are unaware of the proper supplement protocol (including water fluoride testing, when necessary), dosage guidelines, and the actual fluoride concentrations in the area's main water supplies.[5-11]

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The purposes of this paper are to explain the need for and the importance of dietary fluoride supplements in Wisconsin and to review the proper protocol for their use. The article should help the practitioner provide optimum preventive care to young patients.

Systemic supplements. Community water fluoridation is the most efficient and cost effective method of providing systemic fluoride for the prevention of dental caries.[12] Unfortunately, almost one half of the population of the United States drinks water that is not optimally fluoridated.[13] In Wisconsin approximately 92% of the population served by community water systems is receiving fluoridated water. This figure, however, represents only 63% of Wisconsin's total population. In fact, even if *all* community water systems were fluoridated, 32% of the state's population would remain without access to fluoridated water.[14]

Alternative sources of systemic fluoride are necessary if more children are to be provided the caries preventive benefits of systemic fluoride. School water fluoridation is one alternative and is currently serving approximately 7,000 children in Wisconsin. These are rural schools on private well water off community systems. Generally, the water from school fluoridators contains 4.5 times the optimal level of fluoride for community water fluoridation in that particular geographic area to approximate the fluoride intake that would take place if the children were drinking water fluoridated at the average optimal 1.0 ppm all day, every day. The students drink the school water only for a few hours on school days (approximately 180 days per year). Children who drink school water fluoridated at 4.5 times optimal will experience substantial caries reductions of up to 40%. The benefits are particularly great in the late forming teeth that receive both systemic and topical exposure.[15]

Table 1.—Supplemental fluoride dosage schedule*
(In mg. of fluoride per day)

	Parts per million fluoride in water supply		
Age of child	**<0.3**	**0.3 to 0.7**	**>0.7**
Birth to 2 years†	0.25	0	0
2 to 3 years	0.50	0.25	0
3 to 13 years†	1.00	0.50	0

*Recommended by the Council on Dental Therapeutics of the American Dental Association, by the Committee on Nutrition of the American Academy of Pediatrics, and by the American Academy of Pediatric Dentistry.

†The American Academy of Pediatrics recommends providing supplements from 2 weeks through at least age 16.

(Note: 1 part per million = 1 mg/liter.)

Children who drink water from an optimally fluoridated community system or a school fluoridation system should not receive systemic fluoride supplements. Children who drink water from fluoride deficient water systems and participate in topical school fluoride rinse programs should receive systemic fluoride supplements. Specific information about the concentration of fluoride in a community's water supply may be obtained from the local water company, health department, or dental public health personnel. Rhys Jones, dental coordinator for the Wisconsin Division of Health, and first author of this article, also can provide lists of communities and schools in Wisconsin that are optimally fluoridated. A fact sheet on dietary fluoride supplements is also available from Dr Jones.

Fluoride supplements. For children who do not receive fluoridated water, the use of dietary fluoride supplements (tablets or drops) is a safe and effective means of reducing the incidence of dental caries by up to 60% or more[16-23] and has been recommended for use in private practices.[24] To receive maximum preventive benefits, the supplements must be taken daily from birth until at least age 13.[4]

Supplement protocol. It is important that children receive the appropriate dose of systemic fluoride. This can be accomplished only if the practitioner knows the fluoride concentration of the patient's main source of drinking water. (Occasionally, more than one important patient water source must be considered and the average fluoride level determined.) Fluoride levels exceeding the optimal are associated with an increased risk of dental fluorosis (mottling).[25] Although fluorosis is primarily a cosmetic problem, severe cases often involve the pitting of the tooth surface. Therefore, to avoid exceeding the recommended dose, the practitioner should know which communities in the area are fluoridated and the concentration of fluoride.

A separate water sample should be submitted to determine the fluoride content of a patient's community, school, or individual water supply if the practitioner does not have prior specific knowledge of the level. Because there can be significant variations in water fluoride content from nearby wells, even in a small geographic area, one should not rely on the results of a sample from a different source, no matter how near.

Water sampling procedures. The State Laboratory of Hygiene will analyze

Table 2.—Sample prescriptions
Rx: Sodium fluoride drops 0.25 mg F/drop Dispense: 24 ml Sig: Place one drop daily inside mouth or add to water, formula or foods. CAUTION: KEEP OUT OF REACH OF CHILDREN Note: This is a generic prescription for fluoride drops to be used when 0.25 mg fluoride is needed, ie from birth to 2 years with drinking water containing less than 0.3 ppm fluoride.
Rx: Sodium fluoride tablets 1.1 mg (0.5 mg F) Dispense: 120 tabs Sig: Chew one tablet daily before bedtime, swish for 60 seconds, and swallow. CAUTION: KEEP OUT OF REACH OF CHILDREN Note: This is a generic prescription for fluoride tablets to be used when 0.5 mg fluoride is needed, ie for a 2-year-old with drinking water containing less than 0.3 ppm fluoride or a child aged 3 to 13 with water fluoride content between 0.3 and 0.7 ppm.

patient's water samples for health professionals. Water sample bottles and further details about the program can be obtained by contacting the State Laboratory of Hygiene, 465 Henry Mall, Madison, WI 53706; telephone: 608-262-3458. There is a $7 charge. The State Laboratory of Hygiene will report the results in milligrams per liter (mg/L); 1 mg/L equals one part per million (ppm).

Dosage schedule

The present guidelines for systemic fluoride supplements recommended by the American Dental Association, the American Academy of Pediatric Dentistry, and the American Academy of Pediatrics are shown in Table 1.[4,26-28] Any water fluoride level greater than 3 ppm requires adjustment from the full dosage supplement.

Determination of appropriate dosage. After determining the fluoride level of a patient's main source of drinking water the practitioner must determine the appropriate supplement dosage, if any, to prescribe. For example, a 4-year- old with a water fluoride level of 0.5 ppm would receive a 0.5 mg supplement instead of the full supplement dosage of 1.00 mg, appropriate where the water fluoride level is 0.2 ppm.

It is essential to determine whether an infant is being exclusively breast-fed, bottle-fed, or obtaining nutrition from both sources. Totally breast-fed babies should receive a full supplement, since very low amounts of fluoride are found in human milk, even when the mother resides in a fluoridated area.[29] The major manufacturers of milk-based infant formulas have removed fluoride from their products that previously contained variable levels. An infant on milk-based formula now receives fluoride almost exclusively from the water that is mixed with the formula.[30] Soy-based formulas, however, have been found to contain higher levels of fluoride, and infants consuming them may not require supplementation.[31] The practitioner must determine the proportion of bottle-feeding and reduce the supplement accordingly for those infants receiving nutrition from both sources.

Since excessive fluoride can cause fluorosis, parents should contact the provider of the supplement (physician or dentist) when changes occur in the infant's consumption of liquids so the fluoride supplementation can be adjusted. Significant changes in feeding patterns, such as changes from breast-feeding to bottle-feeding or breast-feeding to solid foods, must be reported to the provider so that the dosage of fluoride supplements can be adjusted if necessary.

Although children should see the dentist at a young age, most do not do so before age 3. The complexities of controlling fluoride dosage for infants and younger children must, therefore, be the joint responsibility of physicians and dentists. It is also important to remember that dosage typically must be adjusted ages 2 and 3.

Determination of water fluoride levels and systemic fluoride needs may be best accomplished as a routine part of new and recall patient examination procedures for pregnant women and children under age 16. Consequently, it has been suggested that physicians and dentists delegate appropriate aspects of these responsibilities to nurses, dental hygienists, and other personnel to facilitate the process.[9]

Fluoride supplements are now available in 0.25, 0.5, and 1.0 mg tablets, and several commercial brands are also obtainable[3] (see also List of Accepted Products—Fluoride Supplements in the February 1988 issue of the *JADA*). In addition, many pharmacies can provide a generic product. The tablet should be chewed before swallowing to provide topical benefit. Fluoride drops, often providing 0.125 mg or 0.25 mg of fluoride per drop, should be used for those who cannot chew a tablet. No more than 264 mg of sodium fluoride or 120 mg of fluoride should be prescribed at one time for safety reasons.[4] The product should be kept in a childproof con-

tainer in a secure place. Sample prescriptions are shown in Table 2 for 0.5 mg tablets and 0.25 mg drops.

The biggest difficulty with fluoride supplements is patient compliance.[19-22,32] Numerous studies have documented the effectiveness of fluoride supplements in reducing dental caries. The supplementation schedule, however, must be followed conscientiously. These studies have shown that the greatest caries reductions have occurred as a result of select populations' seeking pediatric medical or dental care on a regular basis and also as a result of follow-up from dedicated and enthusiastic physicians and dentists who were able to motivate the patients to comply with the dosage regimen. The physician, therefore, must routinely encourage and attempt to monitor the child's supplement use.

We hope this article will encourage and assist physicians in Wisconsin in providing appropriate doses of systemic fluoride supplements to those children in need. The medical profession must work closely with dentists and other health professionals if systemic fluorides are to be used to greatest benefit by our population.

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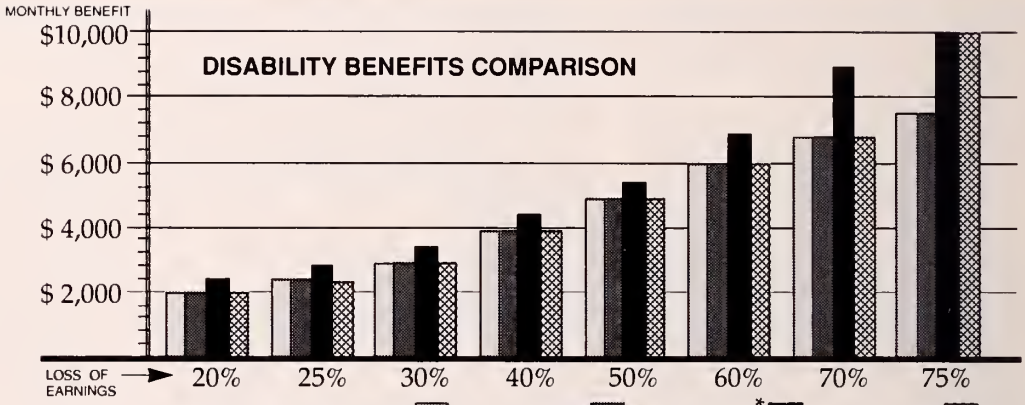

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Wisconsin's durable power of attorney

Sally Wencel, JD
SMS staff attorney

On Aug 5, 1988, Att Gen Donald J. Hanaway issued an opinion that clarified the role of Wisconsin's durable power of attorney law in granting to persons other than the patient the authority to make health care decisions for the patient. In this opinion, Hanaway concluded that medical decisions can be delegated through a durable power of attorney if the document that creates this legal relationship is specific about this delegation of medical decision-making power.

What is it?

Common law principles allow you (the "principal") to delegate certain powers—usually over your property and money—to another person and to be bound by that other person's decisions if they're made within the limits of the power. This is known as power of attorney, and the person you give power to is called the "attorney-in-fact." But, because this power of attorney is automatically dissolved if you become disabled or incapacitated, the question of whether the attorney-in-fact could make medical decisions for you could never arise.

In 1981, Wisconsin became the sixth state in the nation to adopt the Uniform Durable Power of Attorney Act. This law permits the creation of an attorney-in-fact which survives the principal's incapacity or disability. The durable power of attorney was originally perceived as an estate planning tool, or, as it is often called, "senility insurance." The law is codified in Wis Stat §243.07. It is important to note that the law applies only to those powers of attorney created on or after May 1, 1982. Therefore, all powers of attorney executed before that date cannot—by definition—be durable.

You may appoint anyone to serve as your attorney-in-fact with durable powers. The law refers to the appointed person as "another," meaning that an unnamed person could become the attorney-in-fact, such as the "president of the United States." Some states that have durable powers of attorney for medical decision making prohibit the appointment of the principal's physician as the so-called health care agent. There is room for debate whether more than one person, such as several family members who would operate as a counsel, can be named as the attorney-in-fact.

Technical concerns

The durable power of attorney can be either "springing"—immediately effective upon incapacity or disability—or immediately effective upon execution. Although this seems to be a technical point, the dynamics of a family can change when one of its members is incapacitated, and conflicts may be exacerbated by the "springing" action of a durable power of attorney.

Another technical concern that could be important is the relationship of the attorney-in-fact to a court-appointed fiduciary. The term "fiduciary" includes conservators, guardians, or other trustees charged with the management of the principal's property. The law specifies that the attorney-in-fact is accountable to the fiduciary as well as to the principal and, in fact, the fiduciary has the

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power to revoke or amend the power of attorney just as would the principal had he or she not been incapacitated or disabled. The guardian of the person, such as a guardian appointed by a court under Wis Stat Chap 880, does not appear to have this power to revoke or amend a durable power of attorney. In either form, the appointment of a fiduciary by the court does not automatically terminate the durable power of attorney.

Health care decisions

Although the issue addressed by Hanaway concerned the use of durable power of attorney to provide consent for placement in a nursing home, the opinion clearly stated that the powers delegated to the attorney-in-fact include making health care decisions—if the document specifies this delegation of power. This opinion does not have the force and effect of law, but it could influence a court's interpretation of the law. It should be noted that several Wisconsin legislators have sought, and continue to seek, legislation to create a durable power of attorney for medical decisions.

What is included in medical decisions? Many commentators are confident that an attorney-in-fact can make most, if not all, health care decisions, including terminating nutritional and hydration support. Whether an attorney-in-fact could provide consent for HIV testing remains a question, particularly since the HIV testing statute is specific that only the "subject of the test" can provide informed consent.

Living wills

What is the relationship of the durable power of attorney has to a living will, or "declaration to physicians"? Living wills are clear statements of the kind of health care patients desire if they become incapacitated, but attorneys-in-fact can be granted the power to make health care decisions. If the decisions of the attorney-in-fact conflict with those of the living will, which should prevail? The outcome turns on the "substituted judgment" *v* "best interests" debate that often arises in this area of the law.

Continued on page 28

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- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis
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Adverse Reactions: (percentage of patients)
Therapy-related adverse reactions are uncommon. Those reported include
- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
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- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported
- Other: eosinophilia, 2%, genital pruritus or vaginitis, less than 1%, and, rarely, thrombocytopenia

Abnormalities in laboratory results of uncertain etiology
- Slight elevations in hepatic enzymes.
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Continued from page 26

Substituted judgment is the standard for surrogate decision making that looks at the person's specific or characteristic preferences—what the patient would have chosen if he or she were able to decide. Courts have considered testimony from persons who were witnesses to relevant statements made by the now incapacitated patient. One often cited case is *Brophy*,[1] in which the Massachusetts Supreme Judicial Court permitted cessation of nutritional support to a man in a persistent vegetative state based on testimony by his wife regarding comments he had made about the Karen Quinlan case. A closely split court found that Brophy's statements that he would decline artificial nutrition and fluids were sufficient to allow his wife to exercise substituted judgment.

The living will is clear evidence of the patient's wishes concerning treatment. If the substituted judgment standard is the basis of surrogate medical decision making, the living will would direct the patient's course of treatment. There is, however, a catch to this reasoning. The living will law exempts nutritional and fluid maintenance and pain alleviation from the list of life-sustaining procedures that declarants may direct physicians to withhold. When the living will is silent, substituted judgment based on the living will cannot be defined.

In potential conflict with the substituted judgment standard is the best interests standard, which is sometimes described as what most people, or—using legal parlance—what the "reasonable person" would choose in the same situation. Obviously, what the patient in question would decide is not necessarily what most people would. For this reason, the best interests test often gives the secondary consideration of the unique qualities of the person for whom the decision is being made.

An often cited illustration of the two-tier best interest approach is the Massachusetts Supreme Judicial Court decision, *Saikewicz*,[2] in which the court considered the question of whether to treat with chemotherapy a severely retarded 67-year-old man who suffered from leukemia. The court was asked whether Saikewicz should receive chemotherapy which was estimated to provide a 30% to 50% chance of extending his life two to 13 months. Although most mentally normal patients would choose chemotherapy, the court ruled against the treatment for this patient because of his inability to comprehend both the treatment and its side effects. Therefore, the court took into consideration not only what the reasonable person would choose in the same circumstance but the characteristics of the particular person about whom the decision is being made.

In other states where durable powers of attorney for health care decisions are specifically codified into law, provisions within the law guide attorneys-in-fact in making decisions for incapacitated or disabled patients. California's law,[3] for example, explicitly says that attorneys-in-fact make decisions based upon a "substituted judgment" rather than a "best interest" standard. Without this specific legislative guidance, however, Wisconsin physicians and others involved in the possible conflict between the attorney-in-fact's wishes and the living will might need to turn to court for resolution.

Other documents and treatises discussing the standard for surrogate decision-making, such as in the durable power of attorney, for health care favor the substituted judgment standard. For example, the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research treatise entitled "Deciding to Forego Life-Sustaining Treatment," states a preference for the substituted judgment over best interests standard, except when insufficient information is available to make a substituted judgment.[4] If the patient has never been competent, such as in the case of a severely retarded person, only the best interests test would be available.

It is interesting to note that the original drafts of health care agent bills considered by the Wisconsin legislature stated that the proper standard to be used by the health care agent is the substituted judgment. Although this acceptance by the drafters is interesting, it is no way binding upon those who need to resolve potential conflicts between living wills and attorneys-in-fact.

Summary

Att Gen Hanaway's recent opinion that Wisconsin's durable power of attorney can be used to direct the health care of a disabled or incompetent patient helps to bridge gaps left by the Natural Death Act (living will law). The attorney general's opinion and the Uniform Durable Power of Attorney Act provide guidance on what constitutes a valid document creating this power. Questions remain, however, as, to how the living will and attorney-in-fact relate when a conflict arises. A survey of other states that have either court-made law or specific legislation on the topic indicates that the attorney-in-fact should yield to the wishes of the declarant as documented by the living will. In specific instances the living will must be silent by law, however, the attorney-in-fact is presumed to have the power to make the health care decision.

References

1. *Brophy* v *New England Sinai Hospital, Inc*, 398 Mass. 417 (1986).
2. *Superintendent of Belchertown State School & Another* v *Saikewicz*, 373 Mass. 728 (1977).
3. Cal Civ Code § 2410–2443 (1986).
4. President's Commission for the Study of Ethical Problems in Medicine Biomedical and Behavioral Research, *Deciding to Forego Life-Sustaining Treatment*, US Government Printing Office, 1983, p 5.

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The changing role of physician assistants

Rebecca Lehman, PA
Neenah

Many changes have occurred since 1975, when the State of Wisconsin first recognized physician assistants. PAs may now prepare a prescription under physician approved protocols; reimbursement is provided for PA services by Medicare and Medicaid, and more physician assistants are working in medical specialties.

The physician assistant is a professional member of the health care team, qualified by academic and clinical training to perform a minimum of 70% of the clinical procedures performed by a family physician. While the PA takes care of routine patient cases, the physician is free to concentrate more time on urgent or complex patient problems.

It is important to note that the PA is a dependent practitioner, providing patient care under the supervision of a licensed physician. The physician assistant functions as a physician extender, increasing the productivity of the physician.

Chapter Med 8.07 of the Wisconsin Administrative Code allows the physician to delegate to the PA a wide variety of tasks, provided they are within the scope of practice of the supervising physician and within the educational training or experience of the PA.

In August 1984, Chapter Med 8.07 was amended to allow the physician assistant to prepare written prescription orders for drugs, other than controlled substances as defined in Wis Stat §161.01, if directed to do so by the supervising physician. Chapter Med 8.08 specifies the limitations of PA prescribing: the PA may prepare a prescription order only in patient situations specified in established written protocols reviewed annually by the PA and supervising physician. The physician countersigns the patient's chart within one day if the PA is practicing in the same office. If the PA is practicing in a satellite clinic, Chapter Med 8.08 specified that the physician review by telephone or other means the order within 48 hours and countersign the patient record within one week.

In 1985, an independent survey conducted by Joel S. Warnick & Associates, and funded by the Wisconsin Academy of Physician Assistants, surveyed 699 Wisconsin pharmacists. The results indicated the technical quality of the prescriptions by the physician assistants was appropriate and that pharmacists have confidence in prescriptions written by physician assistants. Wisconsin is one of 19 states—and the federal government (Army, Navy, Air Force, Coast Guard, prisons, VA hospitals and public health services)—which allow delegation of prescription preparation to physician assistants.

On Jan 1, 1987, the Medicare law was changed to provide for reimbursement to the physician for PA services provided in hospitals, at surgery and in nursing homes. In the case of services provided in nursing homes, Medicare will approve charges up to a maximum of 85% of the physicians' prevailing charge for that service. For PA services provided in a hospital setting, reimbursement is set at 75% of the prevailing charge. For assisting in surgery, Medicare will allow charges up to 65% of the reasonable charge. The physician must accept assignment for services rendered by the physician assistant; he does not have to accept assignment for his services. As of Jan 1, 1989, Medicare allows reimbursement for PA services in outpatient settings at a rate not to exceed 85% of the physicians prevailing charge for that service, as long as the clinic is located in a rural health manpower shortage area. This is a federal designation and these areas are listed each year in the *Federal Register*.

Medicaid (Title XIX) provides reimbursement for services provided by a physician assistant as a percentage of the supervising physician's payment for that service. Specifically, payment is made at the lesser of the usual and customary charge or no more than 80% of the physician's fee for that procedure. Physician assistants should obtain Medicare and Medicaid provider numbers.

In June 1986, the Wisconsin Academy of Physician Assistants surveyed 400 PAs across the state. Of the 166 who responded to a question regarding the medical specialty in which they worked, 70 (42%) reported family practice. A review of practice specialty of WAPA members in 1987 revealed 32% (49 of 155) who indicated a specialty were in family practice. This compares to 52% in 1980. These numbers mirror a national trend.

The physician assistant concept was conceived in the early 1960s. At that time there was a severe shortage of family physicians particularly in rural areas. At the same time, Army medics were returning from Vietnam with extensive experience but no niche in the civilian health care system. Almost all of these early PAs worked for solo family physicians; many of them staffing satellite clinics in sparsely populated rural areas.

Although there are still many PAs in family practice and in rural settings; more PAs are being hired by specialty physicians, HMOs, hospitals and institutions. These employees are realizing that physician assistants provide high quality, cost effective care in a wide variety of settings.

Rebecca Lehman is a graduate of Wake Forest University and is employed as a physician assistant at the Womens Health Specialists Clinic in Appleton. She currently is serving as president of the Wisconsin Academy of Physician Assistants.

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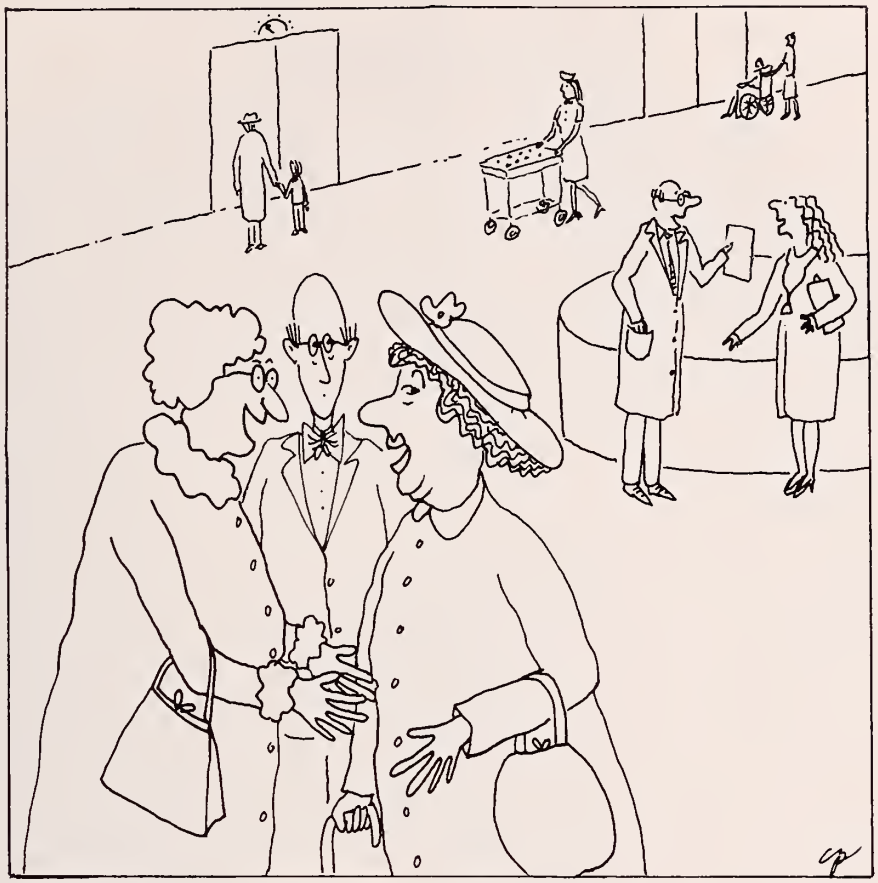

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Loss prevention

Coping with the stress of being sued

Michael C. Reineck, MD
West Bend

Sara Charles, MD, found, in a study of Illinois physicians, that the emotional reactions to being sued occur whether the suit is the defendant's first or latest in a series. Each suit takes on its own characteristics: the nature of the injury, the physician's perception of the events, related or unrelated circumstances in the physician's personal or professional life, and the nature of the relationship between the patient and the physician.

Possible characteristics of depressive and adjustment disorders
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Dr Reineck is a member of the SMS Medical Liability Committee and Risk Management Subcommittee.

When physicians are sued the same traits that make them responsible and conscientious physicians often generate self-doubt, self-scrutiny, feelings of guilt and shame, and—sometimes—self-condemnation. Often, the events that generated the suit have already produced sleepless nights and self-accusations, even in instances when the physician performed with the highest level of competency. To be accused, in court, of negligence for such an event is enormously disruptive and emotionally disturbing.

Coping with stress

Dealing with unpredictability. Familiarize yourself with the tort process through reading, attending meetings, viewing videotapes, and listening to recorded presentations (contact the Academy Committee in Professional Liability for a bibliography).

Ask your attorney for help in understanding the system.

Actively participate in your defense: make your attorney aware of the case's medical facts, assist in finding experts, review the relevant literature, and review your notes and deposition prior to any legal statement or testimony. Prepare yourself just as you would in treating a rare orthopaedic problem.

Regaining confidence. Paramount to effectively resuming your practice is accepting the reality of the correctness of your actions as judged by the current standards of care. This knowledge may be gained through literature review and discussion with your attorney of the expert opinions obtained to defend your case. If wrong, accept it, and settle quickly. If right, prepare for a long, emotionally tumultuous fight.

Develop an awareness of the effect of the stress on your medical practice and personal confidence. If possible, do not undertake high stress problems until the current situation is resolved in your mind.

Seek emotional support for your professional life by a discussion of your feelings (not the facts of your case) with colleagues and physician support groups.

Familiarize yourself with the emotional upheaval commonly associated with a malpractice suit. Through this understanding you will be able to use other methods of coping you have learned in other stressful situations.

Become aggressive by working for tort reform through the SMS, the AMA, and the national specialty societies. Work in your local physician support group. Become politically active through WISPAC. Send suggestions and concerns for action to the SMS Committee on Professional Liability and Task Force on Alternatives to the Tort System.

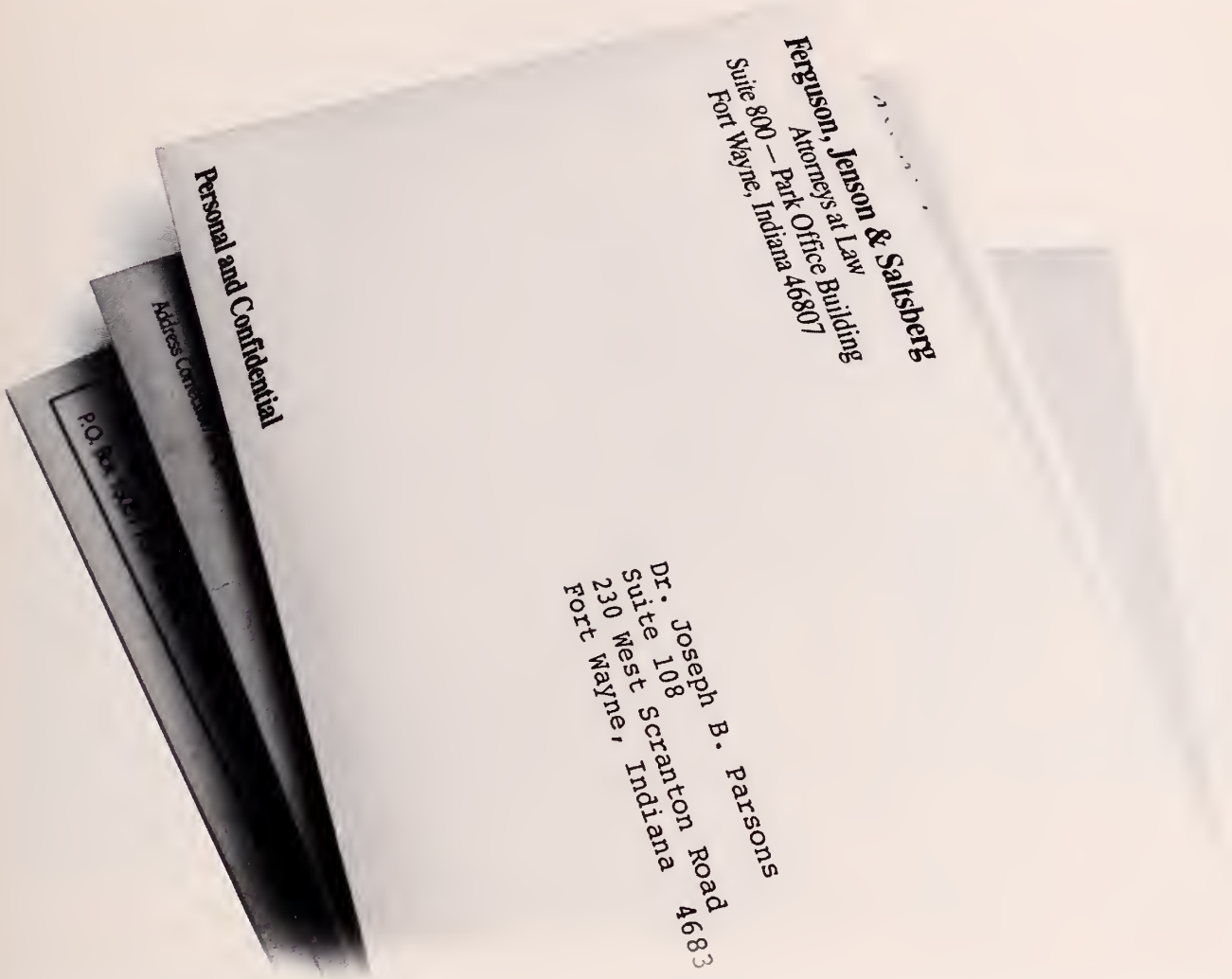
The need for support. Be aware that the stress of litigation will spill over into every facet of your social life and accentuate what conflicts or problems may already exist. Be willing to talk these problems through. Temper your social interactions, taking into account the added stress.

Above all, share these feelings with your spouse and family. This discussion will help you as you help your family work through the stress they will feel.

Offer emotional support to colleagues and their families who find themselves under litigation stress. Helping others work through a problem often helps us better understand, and cope with, our own problems.

Contact, and work with, physician and spouse groups in your area. If one is not available, consider forming a group. If you need more information contact the SMS Physician Support Group, PO Box 1109, Madison, WI 53701; phone 608-257-6781 or 1-800-362-9080.

Crisis in black and white.



Your personal crisis may be waiting in the morning mail. If so, you'll want the best professional help. You'll want a Medical Protective General Agent.

Professional liability coverage is our only business. And we've been providing it for almost 100 years. Our agents live in the territories they serve so they understand the local legal climate. And with the extensive resources of the home office Law Department to draw from, they're always ready to answer your questions or give advice.

Someday it may be you against a negligence charge. When that day comes and your professional reputation is on the line, you're going to want all the help you can get. To make sure you have it, contact your Medical Protective General Agent today.

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SMS sponsors EDS–Medicaid seminars

The SMS is sponsoring a half-day program on Medicaid to give you the opportunity to meet and speak with your field representative. Topics to be covered include:

- Eligibility verification
- Electronic claims submission
- Medicare crossover claims and reimbursement
- Tips on how to resolve common billing errors

Plenty of time will be allowed for questions, and the registration form has been expanded for you to list other topics you would like covered.

The registration fee of $30 includes handouts and refreshments. Morning registration begins at 8:30 AM with the program beginning at 9 and concluding by noon. The afternoon registration begins at 1 PM with the program beginning at 1:30 and concluding by 4:30 PM. The Eau Claire and Stevens Point sites are morning sessions only, with registration beginning at 9 AM and the program running from 9:30 AM to 12:30 PM.

To attend, please fill out a registration form for each participant. *Cancellations must be received in writing one week prior to each seminar to obtain a refund.* Telephone registrations will not be accepted. Confirmation letters and maps will be mailed two weeks after receipt of your registration. If you have questions, please contact the SMS Medical Policy and Practice Division at 800-362-9080 or 608-257-6781, extension 135.

MEDICAID REGISTRATION FORM (please print)
Return with your check payable to: State Medical Society, P.O. Box 1109, Madison, WI 53701

Name _____ Title _____

Clinic/Organization _____

Address _____ City _____

State _____ Zip _____ Telephone (_____) _____
Area Code

Is your physician a SMS member? Yes _____ No _____ Total amount enclosed $_____

Please number up to three sites you could attend in order of preference. You will be scheduled with your first choice unless it is filled to capacity.

Date	Location	Site	Morning	Afternoon
May 10, 1989	Milwaukee	Ramada Inn, South	_____	_____
May 11, 1989	Oconomowoc	Olympia Village	_____	_____
May 16, 1989	Madison	Holiday Inn, Southeast	_____	_____
May 23, 1989	Eau Claire*	Civic Center Inn	_____	
May 24, 1989	Stevens Point*	Holiday Inn	_____	
May 25, 1989	Green Bay	Embassy Suites	_____	_____

**No afternoon site available*

Please check the topics that are of interest to you.

_____ Other Insurance
_____ Second Surgical Opinion Program (SSOP)
_____ Sterilization/Hysterectomy Forms
_____ Remittance and Status Reports
_____ Medical Assistance Number and Medical Assistance Card Format
_____ PAR/PAIR Numbers (Pre-Admission Review)
_____ HCFA 1500 Claim Form—element(s): _____
_____ Medicare Crossovers
_____ Prior Authorization (PA)
_____ Adjustments
_____ Late Billing Appeals
_____ HMO
_____ Recipient Copayment
_____ Electronic Claims Submission

List specific questions you may have about the above topics or additions to these topics:

_____

_____

_____

03/WMJ

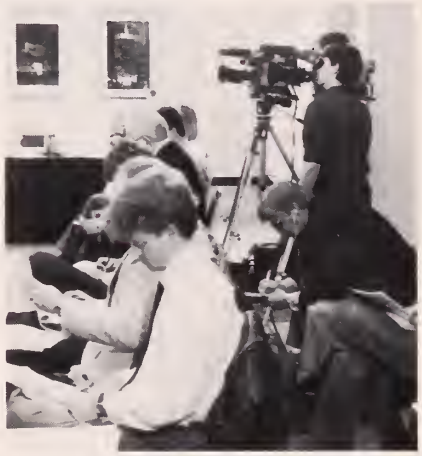
Task force unveils plan for the uninsured

Thomas L. Adams, SMS secretary-general manager, explains the concepts behind a plan to help Wisconsin's uninsured workers at a press conference held Jan 23. The plan was a creation of the SMS Task Force on Health Care for the Uninsured.

On Jan 21, the SMS Task Force on Health Care for the Uninsured recommended to the Board of Directors that it endorse a voluntary, small-employer incentive proposal to address the needs of uninsured persons in the state. The Board accepted the task force's report.

The task force had been meeting monthly during the latter half of 1988, and in January agreed to recommend a plan that targets uninsured employees of small and new businesses. Premium costs would be shared between employer and employee, within certain maximum employee costs, and employers would receive a premium subsidy for a qualified plan.

The task force also recommended that the Board consider a proposal to address the special area of medical services provided to the uninsured. Based on a California program, this proposal would establish a fund for reimbursing physicians and hospitals for uncompensated emergency medical services.



Members of the news media—TV, radio and newspapers—cover an SMS press conference held to unveil an SMS task force plan to help Wisconsin's uninsured workers.

SMS calls State Bar study misleading

The recent State Bar study of personal injury verdicts is misleading and seems intended to lull lawmakers and the public into a false sense of security about the shape of the civil justice system in Wisconsin, according to an SMS news release, which was sent to the statewide news media.

The release was a response to the State Bar's study of jury awards in personal injury cases—not including medical practice—in 1985 and 1986. It concluded that in 1986 juries awarded plaintiffs about $14 million, and spokespersons for the State Bar have cited the study as evidence that there is no crisis in the tort system in Wisconsin. Thomas L. Adams, secretary-general manager of the SMS, said the study "focuses on such a small part of the system and excludes or disregards so many important factors as to be misleading and nearly useless." As an example of the study's inadequacies, Adams cited the lack of data on medical malpractice payouts. From Oct 1, 1985, to Sept 30, 1986 (roughly the same period covered by the study's second year), the Wisconsin Patients

Compensation Fund paid out $8.1 million—based on 25 claims averaging $324,520 each—for malpractice awards and settlements. In other words, looking just at amounts paid by the fund, payouts alone came to more than half the amount reported by the State Bar study.

The figures for the past year are even more alarming, Adams said. From Oct 1, 1987, to Sept 30, 1988, the Patients Compensation Fund paid out 40 claims averaging $554,345 each, for a total $22.1 million. When the fund's threshold amount is included, the total comes to $30 million.

"These claims, which represent a relatively small number of cases, add up to enormous dollar amounts paid to plaintiffs," Adams said. "And while still only representing a small portion of the total civil justice system, present a much more accurate picture of the problem."

Three retire from WMJ service

Three long-time contributors to the *Wisconsin Medical Journal* recently announced their retirements.

Victor S. Falk, Jr, MD, of Edgerton, was medical editor of the *WMJ* from 1962 to 1987 and is currently medical editor emeritus. Dr Falk is also editor of the Wisconsin Medical Alumni *Quarterly*. In 1984 he received the State Medical Society's Directors Award, and he will be inducted into the Fifty Year Club at the Society's annual meeting in April.

Wayne J. Boulanger, MD, of Milwaukee, who is also retiring, was with the journal for 13 years, having served both as editorial director and as a member of the editorial board. Dr Boulanger also served on the SMS Board of Directors and is a past president of the Milwaukee Academy of Medicine.

Melvin F. Huth, MD, of Baraboo, was a member of the *WMJ* editorial board for 29 years and recently announced his retirement both from his medical practice and from the board. Dr Huth was inducted into the SMS Fifty Year Club in 1985. He has been active in civic affairs in Baraboo for many years and was an organizing force behind establishing WIAA physical examination requirements for athletes.

Annual Meeting events: 1989

Wednesday, April 12

7 AM–12 PM
SMS Finance Committee: Solomon Juneau, second level, Hyatt

9 AM–12 PM
SMS Executive Committee: Pere Marquette, second level, Hyatt

12 PM–5 PM
SMS Board of Directors luncheon and meeting: Lakeshore A, B, C, lobby level, Hyatt

3 PM–6 PM
Auxiliary Executive Committee: Solomon Juneau, second level, Hyatt

6 PM–11 PM
SMS Board of Directors and Fifty Year Club dinner: Regency Ballroom C, D, second level, Hyatt

7 PM–12 AM
Auxiliary Board of Directors dinner meeting: Executive C, D, second level, Hyatt

Thursday, April 13

7 AM–9 AM
District 1 caucus: E-4, MECCA

7 AM–8:30 AM
District 2 caucus: W-6, MECCA

7 AM–8 AM
Young Physicians Section caucus: Pere Marquette, second level, Hyatt

7:30 AM–5 PM
Auxiliary hospitality suite and Fort Crawford Museum gift shop: Executive A, B, second level, Hyatt

7:30 AM–4 PM
Auxiliary House of Delegates registration: E-3, MECCA

8 AM–10 AM
Auxiliary reference committees: lobby level, Hyatt

Bylaws:	Lakeshore A
Finance:	Lakeshore B
Health projects:	Lakeshore C
RCTs	Gilpatrick A, B, C

8 AM–9 AM
SMS Section delegates caucus: W-10, MECCA

8 AM–11 AM
SMS House of Delegates registration: West Octagon, second floor, MECCA

9 AM–12 PM
SMS House of Delegates first session: West Octagon, second floor, MECCA

9 AM–4 PM
Auxiliary House of Delegates: E-2,3, MECCA

11 AM–12 PM
Ben Lawton Lecture: E-4,5, MECCA

11:30 AM–1:30 PM
Auxiliary luncheon: Regency Ballroom B, second level, Hyatt

11:45 AM–1 PM
Charitable, Educational and Scientific Foundation luncheon: Regency Ballroom A, second level, Hyatt

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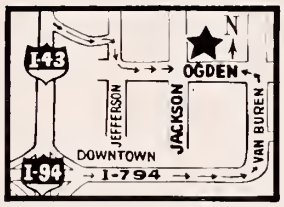
John Ernst



I-94 to Downtown
I-794 to Van Buren
10 Blocks North to Ogden—Turn Left

Or I-43 to Broadway Exit
East to Jefferson
Right Half Block
Left One Block

OGDEN at JACKSON 273-1878

11:45 AM–1 PM
Reference Committee luncheon: Solomon Juneau, second level, Hyatt

12 PM–1 PM
Nominating Committee: W-6, MECCA

1 PM–5 PM
SMS reference committees: lobby level, Hyatt

Finance:	Gilpatrick A, B, C
National affairs:	Lakeshore A
Scientific affairs:	Lakeshore B
Socioeconomic:	Lakeshore C

2 PM–4 PM
Auxiliary House of Delegates: E-2,3, MECCA

4 PM–5:30 PM
Auxiliary new Board of Directors orientation: E-10, MECCA

4 PM–5:30
Auxiliary Pin and Gavel Club, Past Presidents' Tea: Presidential Suite, 18th floor, Hyatt

6 PM–7:30 PM
WISPAC reception: Executive C, D, second level, Hyatt

7 PM–8 PM
President's reception: Regency Ballroom, second level, Hyatt

8 PM–11 PM
President's dinner: Regency Ballroom, second level, Hyatt

Friday, April 14

7 AM–8:30
Medicine, Religion and Ethics Breakfast: Regency Ballroom A, second level, Hyatt

8 AM–12 PM
Wisconsin Surgical Society Council: St Luke's Hospital

8 AM–9 AM
Young Physicians Section caucus: Crystal Room, second level, Hyatt

8:30 AM–11:30 AM
Panel: Management of patients with chronic benign pain: E-4,5, MECCA

8:30 AM–11:45 AM
Aging and extended care program: E-10, MECCA

9 AM–1:30 PM
Emergency Medicine Board of Directors meeting and luncheon: W-11, MECCA

9 AM–11:30 AM
Auxiliary House of Delegates: E-2,3, MECCA

9 AM–10 AM
District 1 caucus: W-10, MECCA

9 AM–10 AM
District 2 caucus: W-8, MECCA

10 AM–11:30
Medical Liability Committee program: Gilpatrick, first level, Hyatt

10 AM–11:30 AM
Wisconsin Nursing Association-State Medical Society Liaison Committee program: E-7, MECCA

11:30 AM–1:30 PM
Auxiliary Inaugural Luncheon: Regency Ballroom A, second level, Hyatt

11:45 AM–1:30 PM
Socioeconomic WISPAC luncheon: Regency Ballroom C, D, second level, Hyatt

12:30 PM–4 PM
Surgery program: St Luke's Hospital

1 PM–5 PM
Plastic surgery program (business meeting 4:15 PM): E-10, MECCA

1 PM–5 PM
SMS House of Delegates registration: West Octagon, second floor, MECCA

1:30 PM–3:30
Emergency medicine program: W-10, MECCA

1:30 PM–4:30 PM
Psychiatry program and Mental Health Committee program: E-2, MECCA

1:45 PM–5 PM
Sessions 2 and 3 of the House of Delegates: West Octagon, second floor, MECCA

2 PM–5 PM
Panel: Management of specific pain syndromes: E-4,5, MECCA

4 PM–5:30 PM
Nominating Committee: W-6, MECCA

4:30 PM–5:30
Wisconsin Society of Preventive Medicine and Preventive Medicine section joint annual meeting: E-7, MECCA

5:30 PM–8 PM
Young Physicians reception: Hyatt

6 PM–10 PM
Past Presidents' Reception and Dinner: Gilpatrick A, B, C, lobby level, Hyatt

6:45 PM–10 PM
Wisconsin Society of Pathologists Board of Directors dinner meeting: Solomon Juneau, second level, Hyatt

6:30 PM–10 PM
Wisconsin Society of Internal Medicine annual spring dinner and reception: Milwaukee Athletic Club.

6:30 PM–10 PM
Wisconsin Society of Plastic Surgeons dinner: Milwaukee University Club

6:30 PM–10 PM
Wisconsin Surgical Society dinner: location to be announced

Saturday, April 15

7:30 AM–9 AM
AMA delegate breakfast: Gilpatrick A, B, lobby level, Hyatt

7:30 AM–1 PM
Otolaryngology program: W-4, MECCA

8 AM–12 PM
Surgery program: E-3, MECCA

8:15 AM–4 PM
Pathology Program: W-5, MECCA

8:30 AM–9 AM
SMS Board of Directors breakfast meeting: Lakeshore A, B, C, lobby level, Hyatt

8:30 AM–12:30
Anesthesiology program: W-3, MECCA

9 AM–11 AM
SMS Board of Directors: Lakeshore A, B, C, lobby level, Hyatt

9 AM–12 PM
Internal Medicine program: W-2, MECCA

9 AM–12 PM
Radiation Oncology program: E-5, MECCA

9 AM–3:30 PM
Wisconsin Academy of Family Physicians Council meeting and luncheon: W-10, E-10, MECCA

12 PM–4 PM
Allergy and Clinical Immunology program: E-2, MECCA

12:15 PM–2 PM
Wisconsin Oncology Group luncheon: E-7, MECCA

12:15 PM–2 PM
Wisconsin Society of Radiation Oncology luncheon: E-8, MECCA

12:30 PM–3 PM
Wisconsin Society of Internal Medicine Council meeting and luncheon: E-14, MECCA

1 PM–4:30 PM
Dermatology program: E-4, MECCA

Special events

Fifty Year Club Awards
Wednesday, April 12, Regency Ballroom C, D, Hyatt

Each year the SMS honors its members who have served their profession and patients for 50 years. The members of the Society congratulate 42 physicians who reached this significant milestone in 1989 and thank them for 50 years of caring, dedication and hard work.

CES Foundation Luncheon
Thursday, April 13, 11:45 AM, at the Hyatt, Regency Ballroom A

The featured speaker is Ben Logan, an award winning writer, editor, lecturer, teacher and producer for television and radio. Logan recently returned to the Gays Mills area, the site of his childhood, and the site of his highly acclaimed books, *The Land Remembers: The Story of a Farm and its People* and *The Empty Meadow*. $20.00 in advance and $22 at the door. Proceeds benefit the Fort Crawford Medical Museum.

Fort Crawford Museum shop and Auxiliary hospitality room
Executive rooms A, B, second floor, Hyatt

Take home the latest in medical and Wisconsin T-shirts, cookbooks, stained glass and other gifts. Profits benefit the Fort Crawford Medical Museum.

Ben Lawton Lecture
Thursday, April 13, E-5, MECCA

The topic will be "The national health agenda for the 1990s," and the speaker will be Rep David R. Obey from Wisconsin's seventh congressional district.

President's reception and dinner
Thursday, April 13, 7 PM, Regency Ballroom, at the Hyatt

Musical entertainment will be provided by the distinguished Charles Night Strings. Sponsored by Physicians Insurance of Wisconsin. Dinner is $35 per person.

Medicine and Religion Breakfast
Friday, April 14, 7 AM, Regency Ballroom A, at the Hyatt

The topic will be "Neither for love nor money: Why doctors must not kill," and the featured speaker will be Leon R. Kass, MD, of the University of Chicago. $15 per person.

Socioeconomic WISPAC Luncheon
Friday, April 14, 11:45 AM, Regency Ballroom C, D at the Hyatt

The topic will be "Parade of presidents," and the featured speaker will be Shelburn Wilkes, CAE, Wilkes Management Services, of Orlando. $18 in advance and $20 at the door.

WNA-SMS Liaison Committee
Friday, April 14, 10 AM, E-6, MECCA
"The nursing shortage: Do we dislike it enough to cure it?"

Exhibits
Second floor, MECCA
8 AM–5 PM, Friday, April 14
8 AM–3:30 PM, Saturday, April 15
Admission is by badge only. SMS members may pick up their badges at the registration desk on the second floor of the MECCA, from 8 AM to 5 PM, Friday, April 14, and from 8 AM to 2:30 PM, Saturday, April 15. No badges are required for the Thursday programs.

There is a registration fee of $25 for all physicians who are *not* SMS members. The fee is payable to the SMS at the registration desk on the second floor of the MECCA.

Some exhibitors had not confirmed their attendance by press time and are not listed here.

Technical

Allscrips Pharmaceuticals, Inc
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Base Contracts Service
Brentwood Instruments, Inc
Cvikota Co, Inc
Dista Products Co
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Eli Lilly and Co
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Forest Pharmaceuticals
General Medical Laboratories
Healthcall
Hoechst-Roussel Pharmaceuticals, Inc
Knoll Pharmaceuticals
Lederle Laboratories
Medical Protective Co
Medpage, a division of Medical Answering Machines
Merck Sharp and Dohme
Newton Funds
Parke-Davis
Physicians Insurance of Wisconsin
A. H. Robins Co
Sauvey & Sauvey
Shearson Lehman Hutton
SMS Services, Inc.
E. R. Squibb
Syntex Labs, Inc
University of Wisconsin Hospital and Clinics
US Army Health Professional Support Agency
Vertex Systems Midwest, Inc
Wyeth-Ayerst Laboratories

Notice to SMS members

On April 29, 1988, the House of Delegates approved the introduction for consideration at the 1989 Annual Meeting of a constitutional amendment as follows:

> That Article IX of the State Medical Society the Constitution be amended to provide for the election of the president-elect by the House of Delegates by ballot between at least two (2) candidates.

and by adding a sentence so that it would read:

> Officers of this Society shall be a president, a president-elect, a secretary, and a treasurer. *The president-elect shall be elected by ballot between at least two candidates.* The president-elect and treasurer shall be elected annually by the House of Delegates.

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County society news

H. Bernie Maroney, II, offers his thanks after receiving the Medical Society of Milwaukee County's Meritorious Service Award at a CMS meeting. Maroney recently ended his 26-year career with the SMS when he retired from his position as assistant secretary and corporate counsel.

Brown. Forty-five members and guests were present at the November meeting of the society. The members and guests were given a tour and presented with a variety of programs that were offered by the Cerebral Palsey, Inc, in Green Bay. Accepted to membership in the County Society were Michael J. Brockman, MD, Michael J. Kincheloe, MD, Max E. Ots, MD, and Daniel J. Ripp, MD, all of Green Bay.

Chippewa. Dr Richard Ulmer, vice chairman of the SMS Board of Directors, discussed with nine CMS members the Harvard RBRVS, its implications for future Medicare reimbursements, and the role of organized medicine in shaping policy changes—stressing the importance of political involvement by the medical community.

Fond du Lac. Paul Markowski, SMS field representative, was the guest speaker at the January meeting of the Fond du Lac County Medical Society. Markowski gave a legislative update and information on the activities of the SMS. A treasurer's report was given and Sang You Kim, MD, 948 Golf View Drive, Fond du Lac was accepted into membership.

Lincoln. Sixteen members and ten spouses attended the January meeting, at which James S. Sanowiak, MD, was approved as the CMS delegate to the SMS House of Delegates. Larry Martin, SMS field representative, provided a legislative report, and the CMS sent letters supporting retention of the state seatbelt law to Sen Kincaid and Rep Ourada.

Outagamie and Waupaca. The Outagamie CMS approved donation of $500 to the Auxiliary to help fund the "Amazing Body" public exhibit. Dr Ken M. Viste, Jr, SMS immediate past president, met with 27 physicians at this joint January meeting and discussed the implication of the Harvard RBRVS on future Medicare reimbursement policies. Larry Martin, SMS field representative, reviewed upcoming SMS workshops around the state, and reported on legislative activities on seatbelts, tort reform and mandatory assignment, and stressed the importance of political involvement.

Rusk. Nine members were present at the November meeting of the society to hear guest speakers Kent B. Crossley, MD, professor of medicine at the University of Minnesota Medical School, speak on "Both sides of the antibiotic issue: Efficacy and cost," and Myrna Bachir made a "Presentation of Syria." Tom Stoebig, SMS representative, presented an update regarding the effects of the recent election and the expected support from the newly elected democrats and republicans. Also, a letter is going to be sent to State Representative Robert Larson and US Representative David Obey regarding the Rusk County Memorial Hospital dilemma as it relates to rural health care.

Sauk. SMS President JD Kabler, MD, addressed the 48 member physicians and spouses at the January meeting, discussing and answering questions on the Harvard RBRVS. SMS Secretary-General Manager Tom Adams provided updates on tort reform, health care for the uninsured, and mandatory Medicare assignment.

Washington. Gordon Schectman, MD, of the Milwaukee County Medical Complex, spoke on "Cholesterol and related problems," to 35 physicians and spouses at the January meeting.

Winnebago. Forty-eight members and two guests were present at the January meeting of the Winnebago County Medical Society to hear Dr Cynthia Clinkingbeard, of the University Hospital and Clinics, Madison, speak on "Psychiatric illnesses are really organic; time to throw out the couch." David L. Darr, MD, Neenah, was accepted into membership of the society.

Thirty-five members and one guest were present at the November meeting of the society to hear J. Frank Wilson, MD, of the Medical College of Wisconsin, speak on "Sun exposure." MDs Manuel F. Batista and Patrick Connelly, both of Oshkosh, were accepted to membership of the society.

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Obituaries

Robert D. O'Connor, MD, 73, of Whitefish Bay, Died Nov 1, 1988, in Milwaukee. Born Dec 6, 1914, in Milwaukee, Dr O'Connor graduated from Marquette University School of Medicine, and served his internship and residency at Milwaukee County General Hospital. Dr O'Connor served in World War II from 1942 to 1946. He had served on the medical staffs of St Mary's, St Michael, and St Joseph's hospitals. He also had been a medical director of Old Line Life Insurance Company, Catholic Knights Insurance Company, and Milwaukee Life Insurance Company. At the time of his death, Dr O'Connor worked for the Veterans Administration Adjudication Department and was medical director of Glenfield Health Care Center. Surviving are his widow, Jean; three daughters, Marilyn Bourke, of Mill Valley, Calif; Anne McKie and Carolyn Riesmeyer, of Kansas; and a son, Robert K.

Lester A. Thompson, MD, 48, of Rice Lake, died Nov 25, 1988. Born July 24, 1940, in Beresford, SD, Dr Thompson graduated from the University of Chicago Medical School and served his internship at University Hospitals in Madison. His residency was completed at the University of Colorado Medical Center in Denver. Dr Thompson served for two years with the US Public Health Service at Grasewood, a Navajo community in Arizona, and also practiced medicine in Dillon, Colo. He had been associated with the Indianhead Medical Group Clinic in Rice Lake since 1973. Dr Thompson was a member of the Barron-Washburn-Burnett County Medical Society, the SMS, and the AMA. Surviving are his widow, Linda; and three sons, Kevin, Richard, and Jesse, all at home.

Frank J. Scheible, MD, 72, of Racine, died Nov 20, 1988, in Racine. Born Oct 4, 1916, in Racine, Dr Scheible graduated from the University of Wisconsin Medical School, Madison, and served his internship at Milwaukee Passavant (Lutheran) Hospital. Dr Scheible served in the United States Army Medical Corps during World War II. He had practiced medicine in Racine for 41 years. He was a member of the Racine

Continued on page 44

Helen A. Dickie, MD, 75, Madison, died Dec 19, 1988, in Madison. Dr Dickie began her lifelong association with the University of Wisconsin at Madison as an undergraduate. Elected as a freshman to the Sigma Epsilon Sigma Honorary Sorority, she won the J. Stephens Tripp Scholarship for academic excellence and graduated with high honors in 1935. Elected to Alpha Omega Alpha in 1936, she graduated first in her class from the UW Medical School in 1937. After an internship at the Los Angeles County Hospital and residency at the Wisconsin General Hospital (now UW Hospital and Clinics), she joined the faculty of the UW Medical School in 1942, rising to the rank of professor in 1955. From 1973 until her retirement in 1983, she was head of the Pulmonary Section in the Department of Medicine. Dr Dickie also served as chief-of-staff at University Hospitals and Clinics, consultant at the Middleton Veteran's Administration Hospital, and chair of the Faculty Advisory Committee of the UW Medical School. She was a leader in every phase of tuberculosis diagnosis, treatment, and prevention, and did pioneering work related to Farmer's Lung. Several score articles and a number of book chapters bear her name. Helen Dickie was awarded the title Master of the American College of Physicians in 1974, and in 1983 she was one of the first two women to receive the UW–Madison Medical Alumni Citation. In 1986 she was named to the Senior Council of the American Lung Association of Wisconsin, in recognition of her more than 30 years of dedicated service on its board of directors. The Wisconsin Chapter of the American College of Physicians presented her its Laureate Award in 1987. She served as president of the American Lung Association of Wisconsin and the Wisconsin and Mississippi Valley Thoracic Societies, and as a member of the National Task Force for Research in Respiratory Diseases, chair of the Panel on Diffuse Pulmonary Fibrosis and Acquired Connective Tissue Disease, and consultant to the Panel on Hypersensitivity Pneumonitis. She was a member of the American Thoracic Society, the American Federation for Clinical Research, the Central Society of Clinical Research, the Wisconsin Society of Internal Medicine, the Dane County Medical Society, the SMS, the AMA, the New York Academy of Science, and Sigma Delta Epsilon-Graduate Women in science. A noted clinician and teacher, her contributions will be remembered and her presence missed by those who knew her.

Helen A. Dickie, MD

ARMY RESERVE OFFERS NEW FINANCIAL INCENTIVES FOR RESIDENTS IN ANESTHESIOLOGY AND SURGICAL SPECIALTIES

If you are a resident in Anesthesiology, Orthopaedic Surgery, or General Surgery including Neurosurgery, Colon/Rectal, Cardiac/Thoracic, Pediatric, Peripheral/Vascular and Plastic Surgery, the Army Reserve has a new and exciting opportunity for you. The New Specialized Training Assistance Program will provide you with financial incentives while you're training in one of these specialties.

Here's how the program can work for you. If you qualify, you may be selected to participate in the Specialized Training Assistance Program. You'll serve in a local Army Reserve medical unit with flexible scheduling so it won't interfere with your residency training, and in addition to your regular monthly Reserve pay, you'll receive a stipend of **$678** a month.

You'll also have the opportunity to practice your specialty for two weeks a year at one of the Army's prestigious Medical Centers.

Find out more about the Army Reserve's new Specialized Training Assistance Program. Call (collect) your U.S. Army Medical Department Reserve Personnel Counselor:
Major Paul A. Deneson, Jr., 312-433-0365.

ARMY MEDICINE. BE ALL YOU CAN BE.

Continued from page 42

County Medical Society, the SMS, and the AMA. Surviving are his widow, June; three sons, Dr Robert F., of St Louis, Mo; James W., of Madison; Steven A., of Eau Claire; and one daughter, Teresa J. Fass, of Madison.

Roland A. Jefferson, MD, 87, formerly of Milwaukee, died Nov 10, 1988, in Santa Barbara, Calif. Born Sept 26, 1901, in Talmage, Neb, Dr Jefferson graduated from the University of Nebraska College of Medicine and served an internship at University Hospital in Omaha, Neb. His psychiatry residency was completed at the Colorado Psychopathic Hospital in Denver, Phipps Psychiatric Institute, Baltimore, Md, the Philadelphia Child Guidance Center, and the Boston Psychopathic Hospital. Dr Jefferson was chairman of the Psychiatric Division of Columbia Hospital in Milwaukee until his retirement in 1974. He was an associate clinical professor at Marquette University and on the medical staff at Milwaukee County General, Milwaukee Lutheran, and Shorewood hospitals. He was a member of the American Psychiatric Association, Central Neuro-Psychiatric Association, Pan American Psychiatric Association, Milwaukee Academy of Medicine, The Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Dorothy; three sons, Henry, of Santa Barbara, Calif; Sam, of San Antonio, Texas; Alfred, of Overland Park, Kansas; and a daughter, Laurie Brandt, of Calabasas, Calif.

Membership update

The following information is being provided from membership reports and from individual members for updating the 1988 Membership Directory as published in the August 1988 issue of the *Wisconsin Medical Journal*. Because of space limitations, address changes and phone numbers will not be included in this update, although they will be changed in the SMS membership records.

County transfers will be included when processing has been completed by the membership records staff.

Changes in practice specialties (as used by the AMA) and changes in board-certified specialties as listed by the American Board of Specialties (see August 1988 Membership Directory) are included. Practice specialties appear before the slash (/) and board-certified specialties appear after the slash.

Andersen, MD, Niels C.
1000 N Oak Ave
Marshfield, WI 54449
FP/FP

Barr, MD, Mary L.
PO Box 518
Cumberland, WI 54829
P

Bauer, DO, Raymond
275 E Green Bay Ave
Saukville, WI 53080
GP OS

Brazy, MD, Peter M.
600 Highland Ave
Madison, WI 53792
NEP IM/IM

Buss, MD, James G. B.
1501 S Madison St
Appleton, WI 54915

Chu, MD, Felix Way-Keon
105 Sheboygan St
Fond du Lac, WI 54935
OTO HNS/OTO

Cragle, MD, Stephen P.
4829 Sheboygan Ave
Madison, WI 53705
OTO

Crapster-Pregont, MD, Barbara B.
1205 O'Day St
Merrill, WI 54452
FP/FP

Crapster-Pregont, MD, Mark G.
1205 O'Day St
Merrill, WI 54452
FP/FP

Dielentheis, MD, David P.
2414 Kohler Memorial
Sheboygan, WI 53081
OBG

Earnhart, MD, Todd D.
1000 N Oak Ave
Marshfield, WI 54449
IM/IM

Fifield, MD, Dan H.
995 Campus Drive
Wausau, WI 54401
FP

Gallenberg, MD, Mary M.
1000 N Oak Ave
Marshfield, WI 54449
ON/OBG

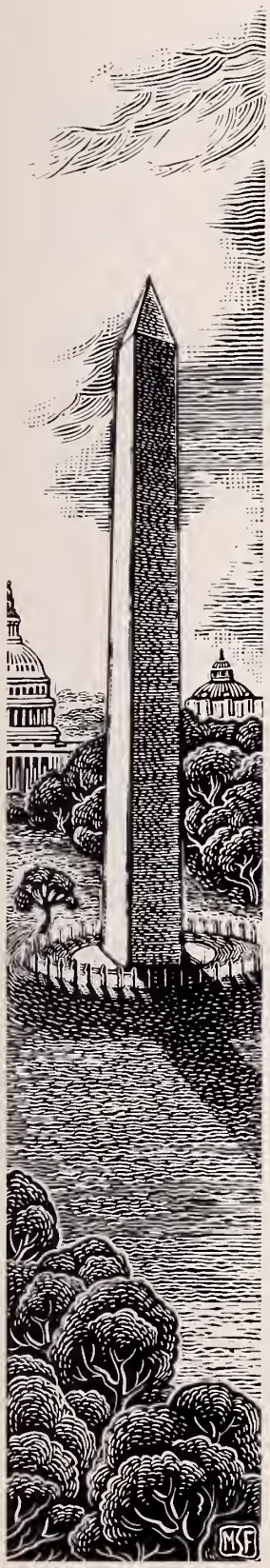
Gnadt, MD, Gregory J.
4922 Columbia Road
Cedarburg, WI 53012
ORS/ORS

Inden, MD, Ronald T.
14745 Watertown Plank Road
Elm Grove, WI 53122

Ingalls, MD, Jerry M.
1515 10th St
Monroe, WI 53566
GS

Lippert, MD, Donald M.
611 N Cogswell
PO Box 932
Silver Lake, WI 53170
FP/FP

Livermore, MD, John T.
2414 Kohler Memorial
Sheboygan, WI 53081
ORS



OVER A CENTURY AGO,

a thousand visionary physicians across the nation bestowed a commemorative stone carving to the Washington Monument. This patriotic display symbolized their unrelenting devotion to a new republic founded on freedoms—including the freedom to practice medicine for the best possible health of all its people. *Today your help is needed to restore this symbol of our profession.*

Because the commemorative stone has suffered from severe erosion and defacement, the American Medical Association is launching a campaign to raise money from physicians to restore this symbol of medicine for the National Park Service. Every contribution made to this effort will serve as a statement of each physician's personal affirmation and commitment to health and medicine in America.

Please take part in rededicating the commemorative stone as a shining example of the strength of medicine in a free and strong society. Contributors who donate $100 or more will receive a memorial replica of the carving as a token of appreciation. Send your tax deductible contribution for this timeless symbol today. Thank you.

AMA AMERICAN MEDICAL ASSOCIATION

NATIONAL PARK SERVICE Department of the Interior

Yes, I want to affirm my commitment to health and medicine in America
Please accept my contribution for:

_____ Other
_____ $100
_____ $50
_____ $25

Please make checks payable to: AMA Stone/National Park Service.
Mail your payment with this form to:

AMA Stone/National Park Service
P.O. Box 109016
Chicago, Illinois 60610-9016

Name _____

Address _____

City/State/Zip _____

All donations are tax deductible. All contributions will be publicly recognized in an unveiling ceremony for the new stone when it is fully restored.

Thank you for your contribution.

Ludwig, MD, Gary K.
1818 N Meade St
Appleton, WI 54911
PTH FOP/PTH

MacDonald, MD, Mary E.
12010 W Bluemound Road
Wauwatosa, WI 53226

McVey, MD, John E.
2827-4 Century Harbor
Middleton, WI 53562
GS

Pizer, MD, Steven J.
2414 Kohler Memorial
Sheboygan, WI 53081
PD

Sachdev, MD, Naveen
2901 W KK River Parkway, #512
Milwaukee, WI 53215

Schroettner, Andrew
3902 E Plankinton Ave
Cudahy, WI 53110

Schten, Erik
2508 N 49th St
Milwaukee, WI 53210

Schwimmer, DO, Steven M.
6308 8th Ave
Kenosha, WI 53140

Shapiro, MD, Ilan I.
12011 W North Ave
Wauwatosa, WI 53226
ORS

Shepherdson, MD, Gary L.
2920 Main St
PO Box 294
East Troy, WI
53120-0294

Sheppard, Jennifer
3055 N Humboldt Blvd
Milwaukee, WI 53212

Sheth, Bhama
9611 W Meadowpark Drive
Hales Corners, WI 53130

Sitorius, MD, Patrick L.
3524 E Milwaukee
Janesville, WI 53546

Soto, MD, Zatchel J.
221 E Washington Ave
Tomahawk, WI 54487
FP/FP

Springer, MD, Errol R.
900 E Grant St
Appleton, WI 54911
ORS

Sprowell, MD, James A.
1270 W Main St
Sun Prairie, WI 53590
FP

Sridharan, MD, Malini
716 E 2nd St
Merrill, WI 54452
FP

Stachnik, Julie
3849 S 95th St
Milwaukee, WI 53228

Staehling, Steven
5013 Flambeau Road
Madison, WI 53705

Stanco, Lynn M.
2152 N 62nd St
Wauwatosa, WI 53213

Start, MD, Armond H.
777 S Mills St
Madison, WI 53715
PH PD/PD

Steinfeldt, Randall L.
4450 N 92nd, #4
Milwaukee, WI 53225

Stellpflug, Ruth
6648 Offshore Drive
Madison, WI 53705

Strassman, MD, Michel J.
2509 Middleton Beach
Middleton, WI 53562
PTH

Vacek, Steven J.
1503 N Hawley Road
Milwaukee, WI 53208

Veit, Andrew
2149 N 60th
Wauwatosa, WI 53208

Vincent, MD, Suzanne L.
80 Sheboygan St
Fond du Lac, WI 54935
PD

Violante, MD, Edward V.
5323 Brody Drive, #203
Madison, WI 53705

Von Rueden, Michael T.
1250 N 68th St, #101
Wauwatosa, WI 53213

Waisbren, MD, Charles J.
3077 Mayfair Road
Wauwatosa, WI 53222
IM/IM

Walsh, MD, Anthony J.
700 W Avenue South
La Crosse, WI 54601
FP

Wang, Edward
120-21 W Bluemound Road, #322
Wauwatosa, WI 53226

Weisskopf, Peter
2429 N 111th St, #7
Wauwatosa, WI 53226

Wells, Susan E.
3164 Ridgeway Ave, #222
Madison, WI 53704

Wick, MD, Kathleen M.
2031 Riverside Drive
Beloit, WI 53511
FP

Wilke, Russell A.
2309 N 83rd St, #4
Wauwatosa, WI 53213

Wirfs, MD, Bonnie Lee
6308 8th Ave, #401
Kenosha, WI 53140

Wong, Trudy G.
2014 S 102nd St, #305
West Allis, WI 53227

Worner, Bernd
307 N 95th St, #113
Milwaukee, WI 53226

Zarghamee, Shahrzad S.
9239 W Wisconsin Ave, #3
Milwaukee, WI 53226

County transfers

(From Winnebago to Fond du Lac)
Hay, MD, Darrell E. M.
505 E Division St
Fond du Lac, WI 54935

(From Wood to Oconto)
Garner, MD, Harold B.
815 S Main St
Oconto Falls, WI 54154

(From Eau Claire-Dunn-Pepin to Trempealeau-Jackson-Buffalo)
Kelly, MD, James H.
610 W Adams
Black River Falls, WI 54615

(From Milwaukee to Ozaukee)
Kodras, MD, Ronald L.
407 N Main St
Thiensville, WI 53092

(From Door-Kewaunee to Waukesha)
McGuire, MD, James P.
2665 S Moorland Road
New Berlin, WI 53151

Physicians Exchange

Minneapolis—BC/BE family practitioner or other specialty with emergency room experience sought for the urgent care department of a large multi-specialty group in desirable Twin Cities location. Our medical clinic is a highly reputable, well-established clinic that has been in existence for over 37 years. Salary and benefits are highly competitive. Regular work week expectation without night call or hospital obligation. Send CV and letter of inquiry to Patrick Moylan, Park Nicollet Medical Center, Minneapolis, MN 55416. 3/89

Family general practice in Pierz, Minnesota. Excellent opportunity for practitioner desiring independent practice with shared-call coverage of one in eight. Hospital owned satellite with excellent facilities and income guarantee in the heart of Minnesota lake country. Send CV to Tim Pollard, VP, St Joseph's Medical Center, 523 North 3rd St, Brainerd, MN 56401. p3-4/89

Gastroenterologist-internist to take over successful established practice in Fond du Lac, July 1989. Will be the only gastroenterologist within a 20-mile radius, equivalence of approximately 100,000 population. Contact E. B. Horn, MD, 481 E Division St, Fond du Lac, WI 54935; ph 414-923-5555. p3-6/89

Family practice opportunities in a group setting. Located in a family oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, President & CEO, Clintonville Community Hospital, 35 North Anne St, Clintonville, WI 54929; ph 715-823-3121. p12/88;1-5/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

RATES: 50¢ per word, with a minimum charge of $20.00 per ad. BOXED AD RATES: $25.00 per column inch. *All ads must be prepaid.*

DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg,* copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Psychiatrist—Chemical dependency psychiatrist interested in chemical dependency needed to join 220-physician multi-specialty group with adjacent 447-bed hospital. Position includes inpatient services for chemical dependency unit with full range of outpatient chemical dependency services available. Behavioral medicine department is presently staffed by seven psychiatrists, one child-adolescent psychiatrist and two psychologists. New clinic building recently completed. Gundersen Clinic, Ltd, is located in La Crosse, Wisconsin, a progressive community of 50,000 built along the shores of the Mississippi River amid scenic bluffs, the city offers excellent recreational facilities. Numerous educational and cultural opportunities are provided by an expanding university with undergraduate and graduate degree programs, and a private liberal arts college. Excellent pension program, no investment required. Service organization. Write: Philip J. Dahlberg, MD, Chairman, Personnel Committee, Gundersen Clinic, Ltd, 1836 South Ave, La Crosse, WI 54601. An Equal Opportunity Employer. 3/89

Emergency medicine-Dubuque. Opening available for qualified individual to join incorporated group of three BE/BC emergency physicians. Unique and enjoyable practice, excellent compensation, complete career opportunities, and highly livable community. Write NET, PC, c/o Mercy Health Center, Emergency Department, Dubuque, IA 52001, or call Mark Singsank, MD; ph 319-589-9666. p3-5/89

Baraboo, Wisconsin. Emergency Department at St Clare Hospital seeks full- and part-time physicians. 8,000 annual visits. Hourly compensation. Pleasant area in which to live, near Devil's Lake and the Baraboo Hills. Also, Madison nearby. Contact: Ronald Levy, President, 707 14th St, Baraboo, WI 53913, or call 608-356-5561. 3-5/89

Needed. Second permanent part-time internist to practice high quality medicine in a fully equipped satellite clinic in the beautiful lakes area of southeastern Wisconsin. No hospital, weekend or on-call duties. Contact: Ernest C. Deeds, MD, Delavan Riverview Clinic, 540 Bowers Blvd, Delavan, WI 53115. p3-4/89

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700. 12tfn/88

Family practice-internal medicine *Women's health.* Multi-specialty clinic. Full- or part-time in newly established Women's Health Center. Primary care of women with time and support you need. Nurse practitioner, counselor, dietitian, wellness and education staff. Beautiful, new, fully equipped clinic. Guaranteed annual salary, generous benefits, time away, partnership after first year. Progressive community of 32,000. Draw of 150,000. Send CV to Mark Johnson, MD, 810 N Eisenhower, Mason City, IA 50401, or call 515-421-5686. p3/89

BC/BE Family practitioner needed to join busy 13-doctor multi-specialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send curriculum vitae or inquiries to: Lake Region Clinic, PC, PO Box 1100, Devils Lake, ND 58301, Attn: Joel Rotvold or call collect at 701-662-2157 for further information. 3-5/89

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-physician expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact E. T. Ayala, MD, Department of Internal Medicine, Sharpe Clinic, SC, 902 East Division St, Fond du Lac, WI 54935; ph 414-922-0560, collect. p3-8/89

HMO Medical director. U-Care, the HMO sponsored by the University of Wisconsin Hospital and Clinics and physician faculty, is recruiting for a medical director. U-Care is a closed panel HMO with more than 15,000 members. The successful candidate should have an established record as a medical administrator, be board certified, and have at least ten years of practice or administrative experience. Physicians of any medical specialty are encouraged to apply, but a primary care background would be of special interest.

There will be an opportunity for limited medical practice, and an appointment to the medical school faculty will accompany the position. The salary will be commensurate with experience and includes a generous fringe benefit package. Interested candidates should contact Dr Richard Friedman, University of Wisconsin, 600 Highland Ave, H4/416 CSC, Madison, WI 53792.

Come join me. Ambulatory care. Orange County, California. Good Hours. Great wages. Excellent amenities. Gerald J. Derus: 714-496-8641. 11tfn/88

Physicians Exchange

continued

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

BC/BE General Internist to join 26-MD multispecialty group with four internists, one nephrologist and one gastroenterologist. Top salary first year, full incentive thereafter. Central Wisconsin university town with drawing area of 80,000. Send CV to Dr John Gauder, Rice Clinic, SC, 2501 Main St, Stevens Point, WI 54481, or call collect 715/344-4120. 12tfn/87

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Excellent opportunity for BC/BE obstetrician-gynecologist in beautiful central Wisconsin. Excellent professional environment and growth potential. Competitive salary and fringe benefits. Send CV and inquiries to: Plaza Gynecology & Obstetrics, SC, 122 North Wilshire Drive, Stevens Point, WI 54481. 2–4/89

Family Practice (BC/BE). Excellent opportunity to join a very busy, five-physician family practice group in south central Wisconsin. Long established group. City of 15,000 located on lake in excellent recreational area. Guaranteed first year salary with opportunity for ownership after one year. Competitive fringe benefits. Contact C. Burchardt, Medical Associates of Beaver Dam SC, 1200 N. Center St, Beaver Dam, WI 53916; ph 414-887-7101. p1–3/89

West Bend, Wisconsin. Seeking emergency department director and full-time physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation, malpractice insurance provided and benefit package provided. Contact: Emergency Consultants, Inc, 2240 S Airport Road, Room 36, Traverse City, MI 49684; ph 1-800-253-1795 or in Michigan 1-800-632-3496. p3/89

BC/BE Internist needed to join busy 13-doctor multi-specialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send curriculum vitae to inquiries to: Lake Region Clinic, PC, PO Box 1100, Devils Lake, ND 58301, Attn: Joel Rotvold or call collect at 701-662-2157 for further information. 3–5/89

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multispecialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Robert A. Braastad, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. P3–5/89

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Lake Winnebago, Wisconsin area. Seeking director, full-time and part-time emergency physicians for low-volume 60-bed hospital. Attractive compensation, full malpractice insurance coverage and benefit package available. Contact: Emergency Consultants, Inc, 2240 S Airport Road, Room 36, Traverse City, MI 49684; 1-800-253-1795 in Michigan 1-800-632-3496. p3/89

Clinical Pediatrician

100 physician multi-specialty group located in the Fox Valley of northeastern Wisconsin is actively seeking a BE/BC pediatrician to join a 13-member department. We offer first year salary, second year salary plus incentive, leading to shareholder status after two years; comprehensive benefit package.

An area of 300,000, the Fox Valley is a vital and growing region encompassing Appleton, Neenah and Oshkosh. The individual communities offer a wonderful family environment with excellent recreational and cultural opportunities.

For information write or call:
Roger A. Rathert, M.D.
La Salle Clinic of Wisconsin
(formerly Nicolet/Medical Arts clinics)
411 Lincoln Street
Neenah, WI 54956
414-727-4294 (days)

Northern Wisconsin
Pediatric physician to join multispecialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Eagle River—Great opportunity for two BC/BE family practice physicians to join well-established practice. Guaranteed annual income and future partnership available. For more information, send resume to Judy Harris, Recruiter, UW Office of Rural Health, 810 University Bay Dr, Madison, WI 53705 or call collect 608/263-7933. 1tfn/88

Family practice-internal medicine. Attractive opportunities for board-certified/board-eligible family practice and internal medicine physicians in Wisconsin and Michigan. Contact Bob Strzelczyk to discuss these positions and your practice requirements. Strelcheck & Associates, Inc., 12724 N Maplecrest Lane, Mequon, WI 53092; ph 414-243-9500 (collect). Outside Wisconsin 800-243-4353. 3–4/89

Physicians Exchange

continued

Career opportunity for qualified Emergency Room physician. Our group covers two hospital emergency rooms and an active walk-in clinic in southeastern Wisconsin. Full fringe benefit package and flexible scheduling offered. Interested parties contact John W. Linstroth, MD, 1201 Sherwood Lane, Caledonia, WI 53108; ph 414-835-7761. 8tfn/88

Physicians wanted to join multi-specialty clinic in central Wisconsin. Family/general practitioner, internal medicine/cardiologist, radiologist, and OB/GYN specialist. Generous salary and fringe benefits. If interested, please contact Rod McLean, Administrator, Neillsville Clinic, SC, 216 Sunset Place, Neillsville, WI 54456; ph 715/743-3231. p1-3/89

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

Family practice. Four-physician group seeks fifth MD (BC/BE) to join growing practice located within one hour of Madison and Milwaukee. Full benefits, first year salary guarantee. One hundred and two bed community hospital located within one block from office. Send CV to Mrs Betty J. Parish, Clinic Mgr, PO Box 49, Watertown, WI 53094; ph 414-261-5204. ltfn/88

Northern Wisconsin
Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

NEW PHYSICIANS FOR WISCONSIN
is seeking
- Family Physicians
- Pediatricians
- Orthopedic Surgeons
- Internists

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7-12/88;1-6/89

Miscellaneous

For rent. Doctor's office suite, Cudahy, Wisconsin, in a four-suite professional building with parking. The other three suites are occupied by a general surgeon, internist, and OB/GYN specialist. For information call 414-481-6558. p3-4/89

Latex gloves, latex gloves, latex gloves. FDA approved. One case 2,000 count $200. Two cases $190 each. Ten or more cases, call for prices. "Satisfaction guaranteed." Medson International Company, 1-800-366-5666. p3/89

Unsecured signature loans for physicians. $5,000 to $60,000. Use for any purpose including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments. Up to six years to repay. No prepayment penalties. Call 1-800-331-4952, MediVersal, Department 356. p2-3/89

Medical Meetings—Continuing Medical Education

March 22, 1989; 8 PM. American Diabetes Association, Wisconsin Affiliate, Inc. Annual guest lecture. *Diabetic neuropathy.* Peter James Dyck, MD, professor of neurology, Mayo Clinic. Performing Arts Center, Milwaukee. 414-464-9413. p3/89

Beloit Clinic, SC, an expanding multispecialty group in southern Wisconsin college town is seeking a pulmonologist, radiologist, allergist, ophthalmologist, and orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J. F. Ruethling, Administrator, 1905 Huebbe Parkway, Beloit, WI 53511; ph 608-364-2200. 10-12/88;1-3/89

Northern Wisconsin
Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

June 16–18, 1989: Wisconsin Radiological Society, Pioneer Inn, Oshkosh. g2-5/89

JUNE 21–24, 1989: Wisconsin Academy of Family Physicians, Radisson Hotel, La Crosse g11tfn/88

July 20–22, 1989: Wisconsin Society of Obstetrics & Gynecology 1989 Annual Meeting, at Radisson Hotel, La Crosse. Info: WSOG, 850 Elm Grove Rd, Elm Grove, WI 53122. g1-7/89

SEPTEMBER 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. 12tfn/88

SEPTEMBER 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay, Wisconsin. g11tfn/88

October 13–15, 1989: Wisconsin Radiological Society Annual Meeting, Concourse Hotel, Madison. g2tfn/89

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

FOR LISTING of other meetings see the July 1, 1988 issue of the *Journal of the American Medical Association:* Continuing Education Opportunities for Physicians for period August 1988 through December 1988.

Medical Meetings—Continuing Medical Education

continued

1989 CME Cruise-Conferences on medicolegal issues and risk management. Caribbean, Mexico, Alaska/Canada, China/Orient, Scandinavia/Russia, Mediterranean, Black Sea, Trans Panama Canal. Approved for 24–28 CME Category 1 Credits (AMA/PRA) and AAFP prescribed credits. Excellent group rates on finest ships. Prescheduled in compliance with IRS requirements. Information: International Conferences, 189 Lodge Ave, Huntington Station, NY 11746; ph 800-521-0076 or 516-549-0869.
p2–4/89

AMA

JUNE 18–22, 1989: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 3–6, 1989: Interim House of Delegates, Honolulu, HI.

JUNE 24–28, 1990: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 2–5, 1990: Interim House of Delegates, Orlando, FL.■

Announcement

Contemporary Public Health Policy and Administration Degree Program

A new, non-residential, Master's program at The University of Michigan is proposed for Fall, 1989. Designed for health care professionals, the program involves one, four-day weekend each month over a two year period, in Ann Arbor. Curriculum concentrates on health policy analysis and public health administration. It includes work in health politics, resource allocation, epidemiology and biostatistics, risk assessment and risk management, and administration.

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April 1989 Vol. 88 No. 4

Contents

Opinions

3 *President's page:* The reform movement
by JD Kabler, MD, Madison

Editorials

7 President Bush and priorities
by John P. Mullooly, MD, Milwaukee

8 A job well done
by Jeffrey H. Lamont, MD, Wausau

Scientific

13 *Special:* Back to the future: Looking ahead in psychiatry
by Donald P. Hay, MD, Milwaukee

15 *Case report:* Evaluating EMP with computed tomography
by George A. Fueredi, MD, David J. Czarnecki, MD, and Peter A. Cooley, MD, Milwaukee

17 Shigellosis winter trends in Milwaukee
by M. Stephen Gradus, PhD, and Henry D. Nichamin, MD, Milwaukee

19 Myocardial revascularization in Jehovah Witnesses
by Paul E. Seifert, MD, James E. Auer, MD, and Patricia Hohensee, RN, Milwaukee

21 Instructions for authors

Socioeconomic

23 Uncompensated care among Wisconsin physicians
by Salvador Carranza, Jack Handley, Victoria Ralph, Kristine Wildner, and Daniel Yeazel, Madison

25 *Public health:* Chronic disease mortality and risk factors in Wisconsin, 1986
by Patrick L. Remington, MD, and Mark E. Moss, DDS, Madison

32 Limits on medical malpractice in Wisconsin

34 California's cap on noneconomic damages

36 Medical malpractice limits across the nation

38 Legislative directory: 1989–1990

44 New nursing home law creates confusion

44 New law regulates physician office laboratories

Organizational

45 Former state legislator joins forces with SMS

45 Physicians briefs

47 County society news

49 News highlights

49 Obituaries

54 Membership update

Our cover: "Neurology-Psychiatry" by Aaron Bohrod. This painting is owned by the SMS Charitable, Educational and Scientific Foundation and is on display at the Fort Crawford Medical Museum in Prairie du Chien.

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The *Wisconsin Medical Journal* (ISSN 0043-6542) is the official publication of the State Medical Society of Wisconsin and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor and editor are responsible for overseeing the production, business operation and contents of the journal. The editorial board, chaired by the medical editor, solicits and screens all scientific, special and soundings articles. The editorial director provides leadership for the editorial associates and comments on both editorials and letters to the editor. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the SMS take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal.*

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President's page

The reform movement

OBSTETRICIANS ARE PAYING $1,000 per week in professional liability insurance premiums. Some family physicians no longer deliver babies because they cannot afford the high premiums obstetrical practice requires. Capable physicians are unable to work part-time because insurance costs cannot be recovered from a limited practice. Younger physicians cannot begin independent practice because they lack the capital to pay initial insurance costs. Premiums for insurance all Wisconsin private physicians are required to carry have risen roughly 540% since 1980 and 200% since 1984. Something is very wrong somewhere.

Lawyers defend the status quo and contend there is no liability crisis, just greedy insurance companies. This view fails, however, to account for the soaring payouts and higher assessments of the state-run Patients Compensation Fund. One trial attorney, a state senator, has said, "there'd be no malpractice crisis if the doctors would quit malpracticing." A trial attorney's television blurb assures us that, "knowing the law is knowing how to win"; presumably the facts are less relevant. The Academy of Trial Lawyers says that "labor, environmentalists, victims, consumers and senior groups" (and, not surprisingly, the Academy of Trial Lawyers) all oppose reform of the current system. Patients who must ultimately pay the lawyer's bills are not quoted.

Physicians tend to regard the costly civil justice system as unsystematically out of control. Malpractice once meant "medical negligence," but the concept has been inflated to mean "unwanted outcome" and litigation has become too lucrative to be foregone. There are too few physicians to support the current inefficient, uncertain, high-cost, and unjust adversarial system.

Those for reform (including the SMS) and those against reform (including the State Bar Association) have planned strong presentation of their views to this session of the Legislature. Proponents must bear not only the burden of proving a need for change, but also the burden that some key legislators are themselves trial attorneys. Opponents must bear the burden of minimizing their own self-interest.

The complex problem of medical professional liability will not be resolved by a single, sovereign solution, but one step required to slow the growth in premiums with the attendant higher costs for and lesser access to health care is a $250,000 ceiling on "pain and suffering" (non-economic damages). This step is the principal legislative goal of the SMS. A minority of physicians argue for a 12-item legislative program and see the SMS proposal as too narrow. Political pragmatists, however, fear the minority program will only diffuse and weaken the reform movement. Opponents will delight in advising legislators that reform should be rejected because "the doctors can't seem to even agree among themselves." We need to recall the motto: "In union there is strength."

JD Kabler, MD

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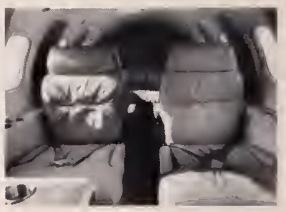

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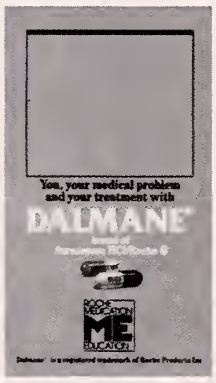

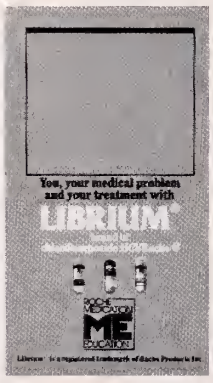

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Editorials

President Bush and priorities

President George Bush, in his inaugural address, said he would like the United States to be a kinder, gentler nation, concerned for the welfare of its citizens. He emphasized his concerns for the homeless and the disadvantaged—in short, the plight of the masses. I believe that his concern for the individual on welfare is genuine and sincere. Perhaps his concern is a harbinger of a welcome new attitude for the domestic concerns of this nation. I hope that this attitude will be translated into action, especially with regard to the health care of our citizens. We are all familiar with the rising health care costs, the millions of people who have no health care, the vast numbers who are underinsured, the shifting of costs to those who are already overburdened financially, and the efforts to cut costs.

In a recent editorial, our Society president, J D Kabler, MD, outlined in straightforward fashion why health care costs cannot be cut, and I share his opinion. Cost containment is a myth and the sooner this nation realizes that, the sooner some progress can be made. Health care costs have continued to rise in a straight line since the 1950s, despite all the efforts being made by government, business, industry, organized medicine and the insurance industry. In this effort to contain costs, new delivery systems have been developed and regulation has been introduced. None of these devices has been successful and each has brought in its wake dissatisfaction among patients, physicians, regulators, and government officials.

If we, as a nation, are to satisfactorily address the problem of providing health care for our citizens, it is incumbent upon us to rearrange the priority we give to health care. When health care is increasingly looked upon as a right, we must make the commitment to fund this right. This applies to government, business, industry, the public and private sector, in short, to all who are responsible for funding. There is no question in my mind that this can be done if there is a will to see that it is done. It is

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just a matter of the priority we put upon it. Ah, there is the rub!

The federal government puts a relatively low priority on health care. The decisions that the Reagan administration made on Medicare and Medicaid policies and the rumors of what the Bush administration will do, give us little reassurance that priorities for health care will be elevated. It is sickening to contemplate the vast expenditures which the government allocates to the defense industry while many of our citizens go without the most basic health care. The monies allocated for one Stealth bomber amount to $550 million; for a fleet of 132 bombers, $625 billion. At the same time, $3.2 billion was cut from Medicare. This is an illustration of our priorities as a nation. If we truly wish to take care of the health care needs of our fellow citizens we have to alter our priorities. We can afford it. It is only a matter of putting our money where our mouths are.

In a prophetic book by Paul Kennedy, "The Rise and Fall of the Great Powers," the fates of great nations of the past 500 years are chronicled. Decline usually came about through spending the nation's treasure on a large military force at the sacrifice of domestic needs. Their economies eventually suffered and they became weak. Their domination waned as economically stronger nations surpassed them. Those nations which nurtured their economies and domestic concerns, and avoided the debilitating effects of a huge military commitment, fared much better than their rivals. We have only to reflect on the rise of Germany and Japan in the past 40 years and the fall of 16th century Spain and 20th century Great Britain to realize the verity of this thesis.

If we, as a nation, are to take care of our own economy—which provides for the money necessary for food, shelter, clothing, and health care of our population—it is incumbent upon President Bush, the Congress, and the body politic to insist on a change in our priorities.

If President Bush wishes to achieve the lofty goals of his inaugural address, he can do it. It is only a matter of the priority he places on health care and the domestic needs of the people who elected him. He says he can make the tough choices. Let us hope that in making these choices, he will opt for the domestic needs of our people and for a healthy economy for these United States.

—John P. Mullooly, MD
Milwaukee

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Following stabilization, Allyson was transferred to a referral center. An extensive workup was inconclusive. A presumptive diagnosis of "intrauterine hypoxic event" was offered the parents, together with all of its unspoken implications of guilt, and Allyson went home.

Allyson's parents and sisters rallied around her in a way that can only be described as extraordinary. No secret was made of Allyson's severe limitations, yet they were presented in the context of Allyson's being "different," and "special." After visiting the family at home, one got the feeling that Allyson was seen as an unknown yet positive force in the family. Although they knew that multiple physical problems put her at increased risk for early death, the

Continued on page 11

Opinion policy

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WARNINGS

1. **Cardiac Conduction.** CARDIZEM prolongs AV node refractory periods without significantly prolonging sinus node recovery time, except in patients with sick sinus syndrome. This effect may rarely result in abnormally slow heart rates (particularly in patients with sick sinus syndrome) or second- or third-degree AV block (nine of 2,111 patients or 0.43%). Concomitant use of diltiazem with beta-blockers or digitalis may result in additive effects on cardiac conduction. A patient with Prinzmetal's angina developed periods of asystole (2 to 5 seconds) after a single dose of 60 mg of diltiazem.
2. **Congestive Heart Failure.** Although diltiazem has a negative inotropic effect in isolated animal tissue preparations, hemodynamic studies in humans with normal ventricular function have not shown a reduction in cardiac index nor consistent negative effects on contractility (dp/dt). An acute study of oral diltiazem in patients with impaired ventricular function (ejection fraction 24% ± 6%) showed improvement in indices of ventricular function without significant decrease in contractile function (dp/dt). Experience with the use of CARDIZEM (diltiazem hydrochloride) in combination with beta-blockers in patients with impaired ventricular function is limited. Caution should be exercised when using this combination.
3. **Hypotension.** Decreases in blood pressure associated with CARDIZEM therapy may occasionally result in symptomatic hypotension.
4. **Acute Hepatic Injury.** Mild elevations of transaminases with and without concomitant elevation in alkaline phosphatase and bilirubin have been observed in clinical studies. Such elevations were usually transient and frequently resolved even with continued diltiazem treatment. In rare instances, significant elevations in enzymes such as alkaline phosphatase, LDH, SGOT, SGPT, and other phenomena consistent with acute hepatic injury have been noted. These reactions tended to occur early after therapy initiation (1 to 8 weeks) and have been reversible upon discontinuation of drug therapy. The relationship to CARDIZEM is uncertain in some cases, but probable in some. (See PRECAUTIONS.)

PRECAUTIONS

General. CARDIZEM (diltiazem hydrochloride) is extensively metabolized by the liver and excreted by the kidneys and in bile. As with any drug given over prolonged periods, laboratory parameters should be monitored at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function. In subacute and chronic dog and rat studies designed to produce toxicity, high doses of diltiazem were associated with hepatic damage. In special subacute hepatic studies, oral doses of 125 mg/kg and higher in rats were associated with histological changes in the liver which were reversible when the drug was discontinued. In dogs, doses of 20 mg/kg were also associated with hepatic changes; however, these changes were reversible with continued dosing.

Dermatological events (see ADVERSE REACTIONS section) may be transient and may disappear despite continued use of CARDIZEM. However, skin eruptions progressing to erythema multiforme and/or exfoliative dermatitis have also been infrequently reported. Should a dermatologic reaction persist, the drug should be discontinued.

Drug Interaction. Due to the potential for additive effects, caution and careful titration are warranted in patients receiving CARDIZEM concomitantly with any agents known to affect cardiac contractility and/or conduction. (See WARNINGS.) Pharmacologic studies indicate that there may be additive effects in prolonging AV conduction when using beta-blockers or digitalis concomitantly with CARDIZEM. (See WARNINGS.)

As with all drugs, care should be exercised when treating patients with multiple medications. CARDIZEM undergoes biotransformation by cytochrome P-450 mixed function oxidase. Coadministration of CARDIZEM with other agents which follow the same route of biotransformation may result in the competitive inhibition of metabolism. Dosages of similarly metabolized drugs, particularly those of low therapeutic ratio or in patients with renal and/or hepatic impairment, may require adjustment when starting or stopping concomitantly administered CARDIZEM to maintain optimum therapeutic blood levels.

Beta-blockers: Controlled and uncontrolled domestic studies suggest that concomitant use of CARDIZEM and beta-blockers or digitalis is usually well tolerated, but available data are not sufficient to predict the effects of concomitant treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities.

Administration of CARDIZEM (diltiazem hydrochloride) concomitantly with propranolol in five normal volunteers resulted in increased propranolol levels in all subjects and bioavailability of propranolol was increased approximately 50%. If combination therapy is initiated or withdrawn in conjunction with propranolol, an adjustment in the propranolol dose may be warranted. (See WARNINGS.)

Cimetidine: A study in six healthy volunteers has shown a significant increase in peak diltiazem plasma levels (58%) and area-under-the-curve (53%) after a 1-week course of cimetidine at 1,200 mg per day and diltiazem 60 mg per day. Ranitidine produced smaller, nonsignificant increases. The effect may be mediated by cimetidine's known inhibition of hepatic cytochrome P-450, the enzyme system probably responsible for the first-pass metabolism of diltiazem. Patients currently receiving diltiazem therapy should be carefully monitored for a change in pharmacological effect when initiating and discontinuing therapy with cimetidine. An adjustment in the diltiazem dose may be warranted.

Digitalis: Administration of CARDIZEM with digoxin in 24 healthy male subjects increased plasma digoxin concentrations approximately 20%. Another investigator found no increase in digoxin levels in 12 patients with coronary artery disease. Since there have been conflicting results regarding the effect of digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing CARDIZEM therapy to avoid possible over- or under-digitalization. (See WARNINGS.)

Anesthetics: The depression of cardiac contractility, conductivity, and automaticity as well as the vascular dilation associated with anesthetics may be potentiated by calcium channel blockers. When used concomitantly, anesthetics and calcium blockers should be titrated carefully.

Carcinogenesis, Mutagenesis, Impairment of Fertility. A 24-month study in rats and a 21-month study in mice showed no evidence of carcinogenicity. There was also no mutagenic response in in vitro bacterial tests. No intrinsic effect on fertility was observed in rats.

Pregnancy. Category C. Reproduction studies have been conducted in mice, rats, and rabbits. Administration of doses ranging from five to ten times greater (on a mg/kg basis) than the daily recommended therapeutic dose has resulted in embryo and fetal lethality. These doses, in some studies, have been reported to cause skeletal abnormalities. In the perinatal/postnatal studies, there was some reduction in early individual pup weights and survival rates. There was an increased incidence of stillbirths at doses of 20 times the human dose or greater.

There are no well-controlled studies in pregnant women; therefore, use CARDIZEM in pregnant women only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Diltiazem is excreted in human milk. One report suggests that concentrations in breast milk may approximate serum levels. If use of CARDIZEM is deemed essential, an alternative method of infant feeding should be instituted.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Serious adverse reactions have been rare in studies carried out to date, but it should be recognized that patients with impaired ventricular function and cardiac conduction abnormalities have usually been excluded from these studies.

The adverse events described below represent events observed in clinical studies of hypertensive patients receiving either CARDIZEM Tablets or CARDIZEM SR Capsules as well as experiences observed in studies of angina and during marketing. The most common events in hypertension studies are shown in a table with rates in placebo patients shown for comparison. Less common events are listed by body system; these include any adverse reactions seen in angina studies that were not observed in hypertension studies. In all hypertensive patients studied (over 900), the most common adverse events were edema (9%), headache (8%), dizziness (6%), asthenia (5%), sinus bradycardia (3%), flushing (3%), and 1° AV block (3%). Only edema and perhaps bradycardia and dizziness were dose related. The most common events observed in clinical studies (over 2,100 patients) of angina patients and hypertensive patients receiving CARDIZEM Tablets or CARDIZEM SR Capsules were (ie, greater than 1%) edema (5.4%), headache (4.5%), dizziness (3.4%), asthenia (2.8%), first-degree AV block (1.8%), flushing (1.7%), nausea (1.6%), bradycardia (1.5%), and rash (1.5%).

DOUBLE BLIND PLACEBO CONTROLLED HYPERTENSION TRIALS

Adverse	Diltiazem N=315 # pts (%)	Placebo N=211 # pts (%)
headache	38 (12%)	17 (8%)
AV block first degree	24 (7.6%)	4 (1.9%)
dizziness	22 (7%)	6 (2.8%)
edema	19 (6%)	2 (0.9%)
bradycardia	19 (6%)	3 (1.4%)
ECG abnormality	13 (4.1%)	3 (1.4%)
asthenia	10 (3.2%)	1 (0.5%)
constipation	5 (1.6%)	2 (0.9%)
dyspepsia	4 (1.3%)	1 (0.5%)
nausea	4 (1.3%)	2 (0.9%)
palpitations	4 (1.3%)	2 (0.9%)
polyuria	4 (1.3%)	2 (0.9%)
somnolence	4 (1.3%)	—
alk phos increase	3 (1%)	1 (0.5%)
hypotension	3 (1%)	1 (0.5%)
insomnia	3 (1%)	1 (0.5%)
rash	3 (1%)	1 (0.5%)
AV block second degree	2 (0.6%)	—

In addition, the following events were reported infrequently (less than 1%) or have been observed in angina trials. In many cases, the relation to drug is uncertain.

Cardiovascular: Angina, arrhythmia, bundle branch block, tachycardia, ventricular extrasystoles, congestive heart failure, syncope.
Nervous System: Amnesia, depression, gait abnormality, hallucinations, nervousness, paresthesia, personality change, tinnitus, tremor, abnormal dreams.
Gastrointestinal: Anorexia, diarrhea, dysgeusia, mild elevations of SGOT, SGPT, and LDH (see hepatic warnings), vomiting, weight increase, thirst.
Dermatological: Petechiae, pruritus, photosensitivity, urticaria.
Other: Amblyopia, CPK increase, dyspnea, epistaxis, eye irritation, hyperglycemia, sexual difficulties, nasal congestion, nocturia, osteoarticular pain, impotence, dry mouth.

The following postmarketing events have been reported infrequently in patients receiving CARDIZEM: alopecia, gingival hyperplasia, erythema multiforme, and leukopenia. Definitive cause and effect relationship between these events and CARDIZEM therapy cannot yet be established.

Issued 1/89

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Continued from page 8

family was committed to a long and loving relationship with its youngest member. As good parents will, her mom and dad focused on her living rather than the possibility of her dying, even though they could have been excused for allowing themselves to be morbidly hypnotized by the latter. And they prayed that Allyson could in some way sense the love that her family felt for her.

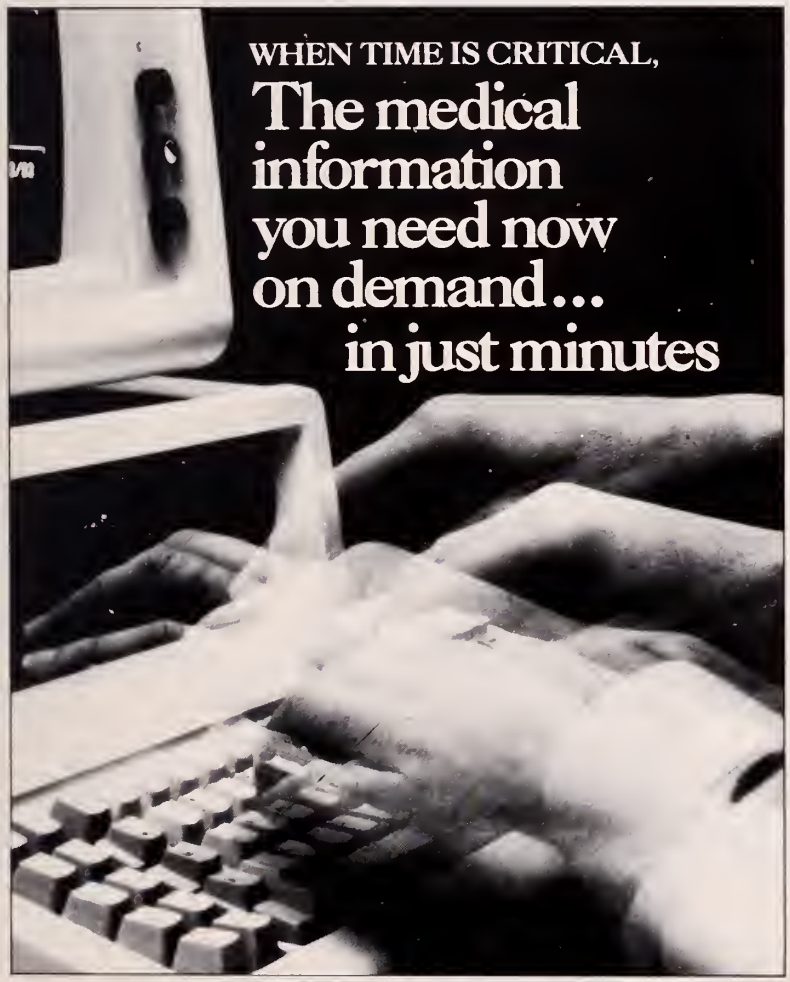
Thus, when Allyson did aspirate and develop pneumonia, their hearts rebelled, even as their minds accepted. *Now? This* young? The answers, of course, were "Yes," and "Yes." The final course was swift and unwavering. Curiously, however, the family and nurses noted that Allyson's respirations became quieter and easier at the end. She also opened her eyes and looked—appeared to *focus*, it is said, on her family in her last hours—and for the first time in her life. And so she died. The family granted a post-mortem, the results of which have been as inconclusive with respect to her neurologic impairment as her initial workup had been.

Allyson's brief life raises existential questions. Why do Allysons happen? No parent hopes that a child will be born severely retarded. Any parents, given the birth of an Allyson, will eventually ask "Why?"—and, more painfully, "Why us?" There are no satisfactory answers to these questions, *if one considers them only from the standpoint of the parents.*

If, however, we accept that we do not live in a perfect world, then we must accept that children such as Allyson *will* be born. However severely handicapped they are, these children need loving and nurturing as much as any. If we, therefore, look at the "Why?" question from the viewpoint of such a child, the answer is clear. Allyson could not have been born into a family better able to accept her, love her, and receive from her what she could give. It was, for Allyson, a perfect match.

As to Allyson's final hours, one can choose to interpret the significance of what occurred however one chooses. The *facts* of what occurred, however, are indisputable. I'd like to think that, as Allyson quieted and opened her eyes, she was letting her family know that she did, indeed, feel their love for her, and that she—and Someone else, perhaps—were thanking them for a job well done.

—Jeffrey H. Lamont, MD
Wausau



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Special

Back to the future: Looking ahead in psychiatry

Donald P. Hay, MD, Milwaukee

ALTHOUGH THE MEDICINE of the priests and rabbis of earliest times may have been primitive, they helped heal both body and soul and their popularity and respect was unsurpassed. Today, although our sophisticated technology can weld retinal tears with optic lasers and blast apart kidney or bladder stones with sonic booms, our patients are more unhappy than ever and our reputations are sullied. We are in the midst of an age of discontent.

The art of healing has become the science of medicine, and the sage's wisdom of the years has been replaced by procedures. For many, science and technology have become the new religions, and scientists and physicians the new priests and rabbis.

The field of psychiatry reflects these changes as much, if not more, than the other medical specialties. Practical psychiatry began with priests and rabbis who combined current medical knowledge with personal interchange. The scientific awareness was minute, but the wisdom and caring with which it was delivered were phenomenal. The key to their surprising track records of "cures," was that their "patients" could open themselves in trusting alliances that proved therapeutic.

Over time, care of the person and care of the body became divided between the clergy and physicians, and psychiatry followed suit. Freudian psychodynamic theory taught us much about how the mind works and how we think about ourselves and the world around us, but with this knowledge came a system of physician-patient exchanges that were based on the premise that, to be effective, the doctor should mostly listen, and the patient should do most of the talking.

The physician was once again revered, but was now exempt from dialogue or scrutiny. The language of healing became highly specialized and difficult to decipher by the rest of the population, and psychotherapists gradually came to be viewed as different, separate, and unapproachable.

While the attempts to understand and treat the mind were taking place behind closed doors and on analytic couches, the medical scientists were working in the laboratories developing new insights and understandings of the human brain. Biochemical understanding of neurotransmitters paved the way for the development of chlorpromazine, reserpine, and meprobamate—leading to benzodiazepines and the tricyclic antidepressants. Psychiatry turned to medications, the public rushed to take a pill to feel better, and the impression that patients need not talk to their physicians—just take their pills—was reinforced.

Then came CAT, MRI, PET, BEAM, and other technological devices, and again there was the unspoken idea that a human exchange between patient and physician was unnecessary—the answers will come from the written reports of radiologists and neurologists reading the results of the scan someplace in the secret depths of the hospital.

Meanwhile, medicine in general was suffering society's negative relationship to the breakdown of communication, the loss of home visits, and increasing bills (with little explanation of what was going on). Physicians who had come to be revered as the new priests for their scientific expertise had lost their abilities for, and interests in, relating personally to their patients, and were now viewed with skepticism and mistrust.

Society's administrators moved in to rescue the population, provide more accountability, and more or less force physicians to behave properly—and it didn't matter if the regulations were antithetical to good medical practice. Physicians objected, but it was too late.

Dr Hay is an associate clinical professor of psychiatry at the University of Wisconsin Medical School, Milwaukee Clinical Campus, and the Medical College of Wisconsin, and president elect of the Wisconsin Psychiatric Association. He is also the medical director of the Geriatric Psychiatry Program at the Sinai-Samaritan Medical Center. This paper is based on an address by Dr Hay to the annual socioeconomic meeting of the WPA, Oct 30, 1988. Reprint requests to: Donald P. Hay, MD, 7040 N Green Bay Ave, Milwaukee, WI 53209. Copyright 1989 by the State Medical Society of Wisconsin.

Where does all of this leave us? Certainly we will continue to develop new and better psychotropic medications and theories of the mind. But unless we learn from the past, the future does not bode well. We could be replaced by a team of mental health care professionals, such as social workers and nurses, whose services are less costly and whose demeanors are often more approachable, and we could be transformed into a subspecialty of internal medicine or family practice. Fortunately, we have the opportunity to shape the future by changing the present.

It's time to combine the best of what we were before with the best of what we are now to become what we actually want to be: warm, caring practitioners of a respected medical science. With that goal in mind, I'd like to offer a few suggestions for reform.

- Say no to any pre-packaged health care program that excessively minimizes the amount of time we can spend with our patients or overly restricts the choices of either physician or patient. If such programs are unavoidable, we should insist on being involved in their planning and implementation.
- Sit with our patients and their families, discuss the problems identified, share our concerns, frustrations and inabilities, and spell out what we can and cannot do.
- Make our offices warm and comfortable places to be, not austere, cold, and totally scientific cubicles.
- Allow for a bio-psycho-social psychiatry. It is no longer tenable to view psychiatry and culture (including religion) as mutually exclusive.
- Work with society to develop better ways to provide psychiatric care that is both effective and affordable.
- Explain what we do, how we do it, why we do it, and what obstacles stand in the way of our success. For the public, we can do this through lectures to civic groups; working with media such as radio or television talk shows; and writing articles or letters to the editor, or granting interviews in newspapers and magazines. Similarly, let's demystify psychiatry for our medical and mental health professional colleagues. We may be able to lessen the stigma of mental illness and enhance understanding of both those afflicted with the illnesses and those who treat the illnesses.
- Work to bridge the gap between psychiatry and medicine by working with both the Wisconsin Psychiatric Association and the State Medical Society, and by establishing liaisons with the professional associations of psychology, social work, and nursing.
- Work more diligently with mental illness and mental health volunteers, such as the Alliance for the Mentally Ill and the Mental Health Association.
- End the artificial separations of private practice clinicians and academicians. Let's think instead of "academic-clinicians" or "clinician-academics."
- End the mutually-exclusive positions of analysts, psychotherapists and biologicists, and thereby end the so-called "mindlessness" or "brainlessness" positions.
- Let's be human again and provide more charity work—especially care and support for the homeless mentally ill.
- Let's police our organizations and ourselves better, and let's do a better job of working with other professional disciplines and with lay groups and let them know what we're doing to decrease malpractice or inadequate and inappropriate treatments.

Medicare alert

The SMS has received information from several sources throughout Wisconsin that a public interest group is soliciting funds using as its pitch the statement that "two thirds of physicians overcharge Medicare." Anyone—including physicians, clinic or office personnel, and patients—who has been approached by representatives of a group using "physician overcharging" as a reason for supporting its activities is asked to contact Sally Wencel or Sonia Porter at the SMS.

Few physicians vaccinated against hepatitis B

Hepatitis B virus is a much greater threat to physicians than is AIDS, but only about one fourth of physicians are vaccinated against the virus, according to an infectious diseases expert quoted in a recent issue of *Ob Gyn News*. The story, which appears in the Feb 1–14 issue of the publication, reports on remarks made by Sanford F. Kuvin, MD, chairman of the Kuvin Center for the Study of Infectious and Tropical Diseases in Jerusalem, during a national forum on AIDS and hepatitis B. According to Dr Kuvin, of an estimated 18,000 US health care workers infected with hepatitis B virus last year, 300 died of acute hepatitis, liver cancer, or cirrhosis caused by chronic infection with the virus.

Although 90% of all hepatitis vaccine goes to health care workers, Dr Kuvin said, only about 40% of health care workers in the United States are vaccinated and only a "disgraceful" 24% of physicians are immunized. He attributed the lack of use of the vaccine among health care workers to a combination of apathy, lack of education, cost ($120), and questions about its perceived safety, which remain ingrained in the minds of many physicians.

Case report

Evaluating EMP with computed tomography

George A. Fueredi, MD, David J. Czarnecki, MD, and Peter A. Cooley, MD, Milwaukee

Extramedullary plasmacytomas (EMP) of the nasopharynx are rarely associated with osseous destruction, and when destruction does occur, only minimal erosions have been found. More extensive bony involvement and intracranial extension in neoplasms of the head and neck usually suggest the presence of a more aggressive tumor such as carcinoma. We report computed tomographic (CT) findings in a nasopharyngeal EMP showing extensive intracranial involvement and severe bony destruction.
Wis Med J 1989;88(4):15–17.

A 55-YEAR-OLD WOMAN had progressive right-sided hearing loss, intermittent right lateral rectus palsy and a single episode of right-sided Bell's palsy. A physical examination disclosed a large nonulcerating polypoid mass involving much of the right nasal cavity. A subsequent incisional biopsy confirmed the presence of plasmacytoma. Bone marrow aspiration and biopsy, as well as a skeletal survey, demonstrated no evidence of multiple myeloma. CT scans of the head and neck in both the axial and coronal projections with and without intravenous contrast enhancement were obtained. Fig 1 demonstrates marked osseous destruction of the base of the calvarium and C1 and C2 vertebral bodies. Fig 2 reveals the extensive soft tissue mass involving the base of the skull with extension into the suprasellar space. Fig 3 shows the anterior extension of the tumor into the posterior nasopharynx and sinuses with marked osseous destruction and extension into the posterior fossa with displacement of the brain stem.

From the Department of Radiology, St Luke's Medical Center. Reprint requests to: George A. Fueredi, MD, Department of Radiology, St. Luke's Medical Center, 2900 W Oklahoma Ave, Milwaukee, WI 53215; telephone: 414-649-6424. Copyright 1989 by the State Medical Society of Wisconsin.

The patient was treated with radiation therapy with portals over the tumor mass and cervical and supraclavicular regions. While significant symptomatic relief was achieved with radiation, only a minimal decrease in tumor mass resulted.

Solitary EMP is a rare malignant neoplasm of plasma cell origin that can occur in any reticuloendothelial systemic organ. The vast majority of tumors (80% to 90%) arise in the head and neck, with 75% of those occurring in the upper respiratory tract, primarily in the nasal fossae and paranasal sinuses.[1-4] Other sites include the gastrointestinal tract, lymph nodes, spleen, breast, testes, and thyroid.[4] EMP is considered a separate entity in both presentation and natural history and must be differentiated from myelomatosis and solitary myeloma of the bone (SMB).[4]

When EMP eventually disseminates, it shows a random osseous distribution, not requiring active marrow sites for proliferation.[4] Common metastatic sites for EMP also include regional lymph nodes, skin, subcutaneous tissue, and liver parenchyma. On the other hand, when SMB eventually disseminates, it has a

Fig 1.—Coronal CT brain scan through midline at bone window showing marked osseous destruction of base of calvarium and C1 and C2 vertebral bodies.

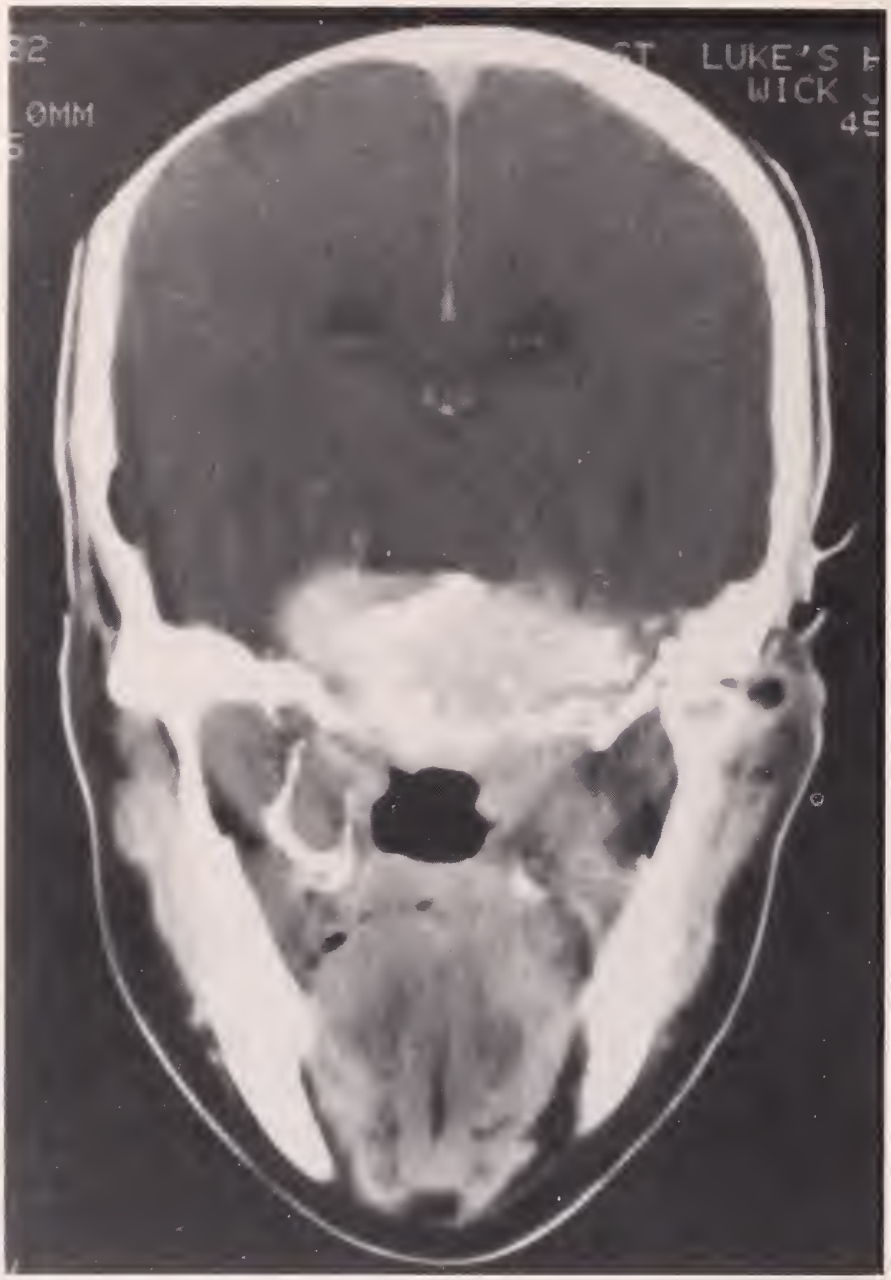

Fig 2.—Enhanced coronal CT brain scan through midline showing extensive soft tissue mass involving base of skull and extension into suprasellar space.

preference for active marrow sites and demonstrates a pattern indistinguishable from myelomatosis on random bone marrow aspiration.[4] Bone destruction and soft tissue extension are rare. It has been suggested that EMP is a separate and distinct syndrome and that SMB simply constitutes a rather unusual presentation of myelomatosis.[4]

CT has proven to be the most effective method for evaluating tumor involvement in the paranasal sinuses.[5,6] Three cases of EMP of the sinonasal cavities with minimal osseous involvement and limited intracranial extension, as evaluated by CT, have been described in the literature.[2,3] It has been suggested that the lack of extensive bony destruction on CT examination favors the diagnosis of EMP or lymphoma and bony destruction more likely occurring in carcinomas.[5]

This case report demonstrates that although the CT findings of severe bony destruction and intracranial extension from a nasopharyngeal tumor are more suggestive of carcinoma, EMP should not be ruled out as a diagnostic consideration.

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Smoking and birth defects

Children whose mothers smoke during pregnancy run a higher risk of having cleft lip and cleft palate, according to a study in the March issue of the *American Journal of Diseases of Children*. The authors, Muin J. Khoury, MD, PhD, of the Centers for Disease Control, and colleagues, analyzed data from a population-based, case-control study of a variety of birth defect risk factors. Offspring of mothers who smoked cigarettes during the three months before or after conception were 60% more likely than those of non-smokers to have isolated (where the cleft is the only major defect) lip with or without cleft palate, and twice as likely to have cleft palate, say the authors.

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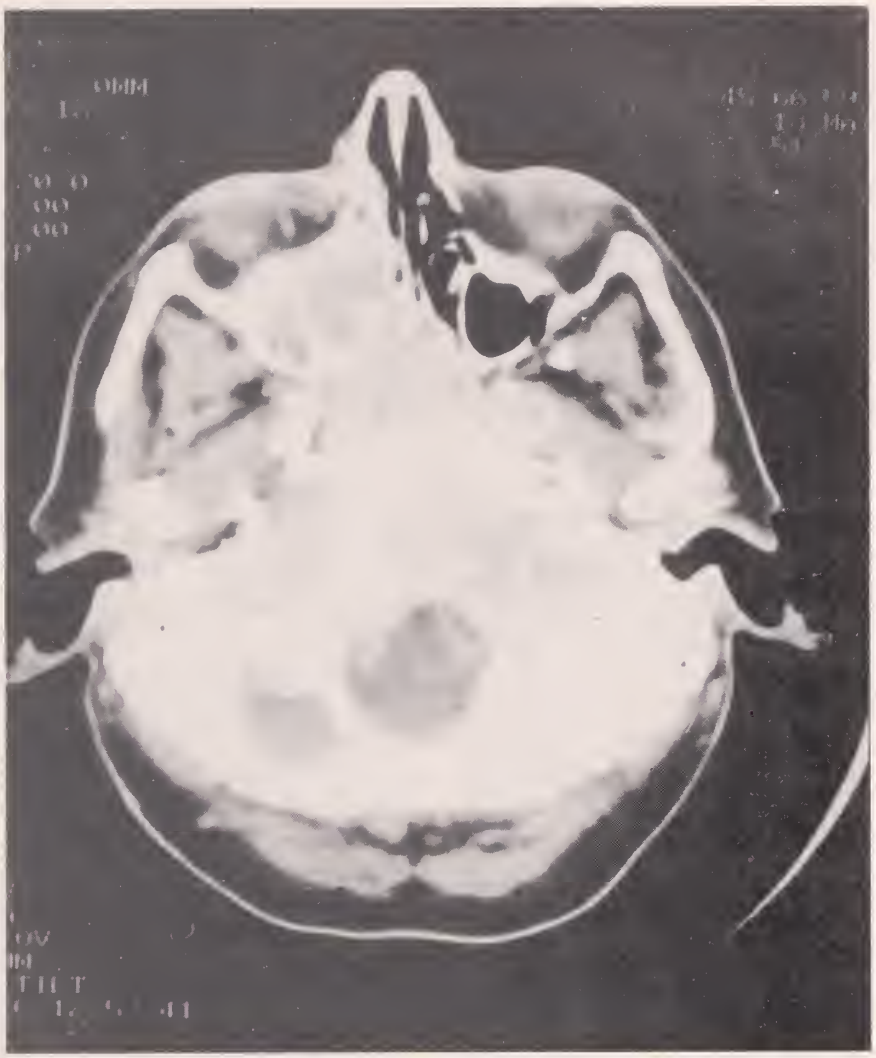


Fig 3.—Enhanced axial CT brain scan through base of skull revealing anterior extension of tumor into posterior nasopharynx and sinuses with marked osseous destruction and posterior fossa with displacement of brain stem.

Female FPs

Women are selecting family practice as their specialty of choice in increasing numbers, according to the American Academy of Family Physicians' annual surveys of family practice residencies.

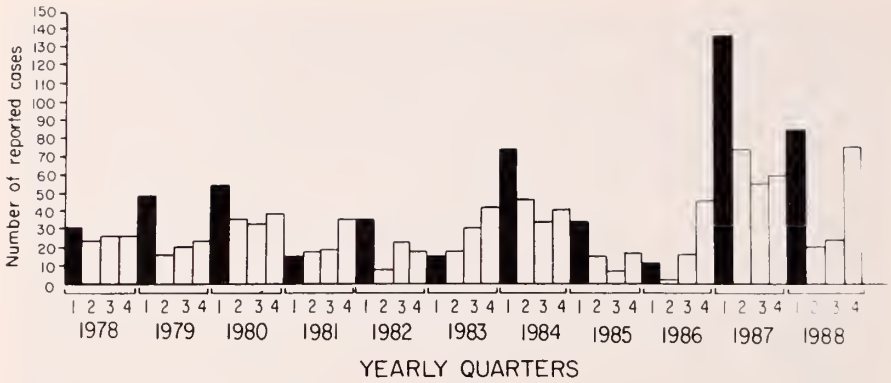
During the past five years, the number of women has increased by 9.1%. Today, 30.1% of family practice residents (2,191) are women, compared with 22% (1,633) in 1983.

Shigellosis winter trends in Milwaukee

M. Stephen Gradus, PhD, and Henry D. Nichamin, MD, Milwaukee

Shigellosis cases reported to the Milwaukee Health Department have been highest during the months November, December, and January for eight of the past 11 years (1978 to 1988). Shigellosis in the United States has classically been described as a summer or late summer-early fall disease. *Wis Med J* 1989;88(4):17–18.

THE NUMBER OF SHIGELLOSIS cases reported annually in the United States has variously been described as reaching a peak during the summer,[1] late summer,[2] or early fall.[3-5] The experience of the Milwaukee Health Department over the last 11 years, however, has been that the infection has a higher endemic incidence in the winter months. The Figure shows that for eight years since 1978 shigellosis cases peaked during November, December, and January. For all three years that did not fit this pattern, the infection peaked during the preceding three-month period (August, September, October). *Shigella* infections also occur with greatest frequency in England during the winter.[6] In two



cities besides Milwaukee—Cleveland and Lexington—two-year and four-year winter seasonal peaks occurred during the late 1960s and early 1970s.[7] These peaks apparently resulted from outbreaks in day care centers that spread into households and subsequently to the community at large.

The cause of winter peaks of shigellosis in Milwaukee is unknown at this time. It is possible that the infection follows a geographic pattern similar to that recently described for the Rotavirus organism.[8] The peak Rotavirus season follows a predictable pattern the United States, proceeding from the Southwest in the late fall toward the Northeast. Both *Shigella* and Rotavirus infections have considerable potential for spread in day care centers; the large number of unlicensed and unregulated day care centers located in many large cities in addition to the number of regulated centers that do not follow proper hygienic practices, may play a major part in delineating a seasonal trend for Rotavirus as well as for *Shigella* infections. The role of day care centers in influencing community-wide seasonal disease trends, particularly with respect to enteric infections, is an area in need of further study.

Drs Gradus and Nichamin are with the City of Milwaukee Health Department—Dr Gradus in the Bureau of Laboratories and Dr Nichamin in the Bureau of Community Health Services. Reprint requests to: M. Stephen Gradus, Bureau of Laboratories, Milwaukee Health Department, 841 N Broadway, Room 308, Milwaukee, WI 53202. Copyright 1989 by the State Medical Society of Wisconsin.

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Caffeine and arrhythmia

Heart disease patients are often warned about the potential harmful effects of caffeine, but this advice "is based primarily on anecdote and folklore," according to a report in a recent issue of the *Archives of Internal Medicine.* The study, by Thomas B. Graboys, MD, of the Harvard School of Public Health, and colleagues, finds no evidence that a modest dose of caffeine causes heart rhythm disturbances, "even among patients with known life-threatening arrhythmia."

Mandatory reporting of HIV test results

Mandatory reporting of HIV test results would reduce the number of homosexual men willing to be tested, according to a letter in a recent issue of *JAMA*. Authors Susan M. Kegeles, PhD, and colleagues at the University of California–San Francisco, base the conclusion on a study of 574 homosexual men, most of whom had obtained HIV antibody testing. Most of the men said they would consent to HIV testing when seeking treatment for symptoms of AIDS or AIDS-Related Complex if reporting of the results to public health officials was not required, but only one third said they would consent if results were reportable. Few would consent to testing if they were seeking treatment at a venereal disease clinic and results were reportable.

Myocardial revascularization in Jehovah Witnesses

Paul E. Seifert, MD, James E. Auer, MD, and Patricia Hohensee, RN, Milwaukee

The refusal of certain patients to accept blood transfusions need not be a deterrent to surgery. We report on nine Jehovah's Witnesses who over a one-year period underwent myocardial revascularization without significant blood loss or decrease in hematocrit values. *Wis Med J* 1989;88(4):19–20.

JEHOVAH'S WITNESSES refuse to accept blood transfusions based on an interpretation of the Biblical passage: "For it is the life of all flesh; the blood of it is for the life thereof: therefore, I said unto the children of Israel Ye shall eat the blood of no manner of flesh; for the life of all flesh is the blood thereof: whosoever eateth it shall be cut off." (*Leviticus* 17:14) With more than 750,000 Witnesses in the United States, it is likely that members of this denomination will at some time require major surgical procedures and present physicians and surgeons with the challenge of treating them while respecting their special beliefs. Our recent cardiac surgical experience indicates that this can be done safely and successfully.

Methods

From Jan 1, 1987, to Dec 31, 1987, nine Jehovah's Witnesses were admitted with significant cardiovascular disease. There were six men and three women with a mean age of 61.6 years. The majority had coronary artery disease, and two had mitral valve insufficiency. All but one patient required myocardial revascularization (see Table 1).

Tests requiring the drawing of blood were limited to an initial preoperative CBC, an electrolyte study, and a coagulation profile. All blood was obtained in pediatric tubes, and no patient was cross matched for blood. Postoperative lab work was discontinued after the patient had been weaned from the ventilator and no longer required blood gas measurements. Table 2 compares the preoperative hematocrit with postoperative values and shows the average changes. Hemodilution while on cardiopulmonary bypass averaged 2,500 cc of crystalloid solution, resulting in an average intraoperative hematocrit of 19.8%. With vigorous diuresis promoted by loop diuretics, postoperative hematocrit values returned to a mean of 33.8%.

Thirty-one coronary bypass grafts were performed, 14 of which used the internal mammary artery. Four of the eight patients undergoing bypass had bilateral mammary artery grafts dissected from the chest wall. There was no difference in postoperative blood loss in the patients having no, one, or both mammary arteries used. One patient had no measurable drainage and one had a total of 750 cc. Volume replacement in the ICU consisted of normal saline solution, lactated ringers, or hydroxyethyl starch (Hetastarch).

Results

There were no deaths in the series; the average time to discharge was

Table 1.—Nine Jehovah's Witnesses who underwent myocardial revascularization

Patient No.	Sex	Age	Diagnosis	Procedure
1	F	68	Mitral insufficiency	Mitral valve annuloplasty
2	M	59	Coronary Artery Disease	CABG × 4
3	M	60	Mitral Insufficiency and Coronary Artery Disease	Mitral valve replacement; CABG × 1
4	M	67	Coronary Artery Disease	CABG × 2
5	M	63	Coronary Artery Disease	CABG × 7
6	M	68	Coronary Artery Disease	CABG × 3
7	M	64	Coronary Artery Disease	CABG × 5
8	F	61	Coronary Artery Disease	CABG × 3
9	F	45	Coronary Artery Disease	CABG × 6

Drs Seifert and Auer are with Cardiac Surgery Associates, Ltd, in Milwaukee. Reprint requests to: Paul E. Seifert, MD, Cardiac Surgery Associates, Ltd, 2901 W KK Parkway, Suite 311, Milwaukee, WI 53215. Copyright 1989 by the State Medical Society of Wisconsin. Ms. Hohensee is a cardiovascular nurse clinician with Cardiac Surgery Associates, Ltd.

Table 2.—Hematocrit values preoperatively, intraoperatively, and postoperatively

Patient No.	Preoperative hematocrit	Intraoperative hematocrit	Postoperative hematocrit	% Change (pre- & postoperative)
1	36.8	18	26.2	– 10.6
2	44	22	37	– 7.0
3	39.7	24	36.3	– 3.4
4	42.3	22	34	– 8.3
5	40.2	20	37	– 3.2
6	44.7	15	30	– 14.7
7	32.5	20	36.4	+ 3.9
8	42.1	20	32.7	– 9.4
9	39.1	17	34.5	– 4.6
Mean values	40.1	19.8	33.8	– 6.4

9.9 days. One patient developed postoperative pneumonitis, which responded to intravenous antibiotics and did not prolong his hospital stay. A 45-year-old woman patient with diabetes developed a superficial sternal wound infection following bilateral mammary artery dissection. Surgical debridement along with intravenous antibiotics and hyperbaric oxygen treatments extended her hospital stay to 26 days. Hematocrit values were not checked prior to discharge. There have been no late reported deaths.

Discussion

The management of Jehovah's Witnesses who are candidates for cardiac surgery requires meticulous attention to detail to prevent complications. The first successful cardiac operation on a Witness was reported in 1964 by Cooley.[1]

In this series, all patients, regardless of hematocrit value, received preoperative iron supplements (ferrous sulfate 320 mg three times daily) and were seen by dieticians to insure well-balanced, high-iron diets. If possible, preoperative hemoglobin levels greater than 12.0 were sought; those patients who did not respond to oral iron were given iron dextran (Imferon) injections. All patients had coagulation profiles drawn. Antiplatelet and anticoagulant drugs were stopped at least seven days preoperatively.

In these cases, our facility obtains signed blood release forms along with informed surgical consent. The release absolves the surgeon and hospital from liability for not administering blood or its products, even in the face of exsanguination. These patients understand that an unexpected coagulopathy, heparin, or protamine reaction or technical problem may result in death due to our inability to transfuse blood products.

Meticulous surgical technique with construction of precise hemostatic bypass grafts aids in limiting blood loss. Use of internal mammary artery grafts is not associated with significant blood loss and can be expected to provide better long-term results compared to saphenous vein grafts, thereby reducing the need for reoperation.[2] Hemodilution is reversed by vigorous diuresis following the bypass period.

The patient who refuses blood for reasons of religion or fear of acquired disease, can safely undergo cardiac surgery, as our experience with these Jehovah's Witnesses demonstrates. Attention to detail, commitment to minimizing blood loss, and performance of technically sound surgical procedures are required to achieve success in this group of patients.

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Wisconsin Medical Journal

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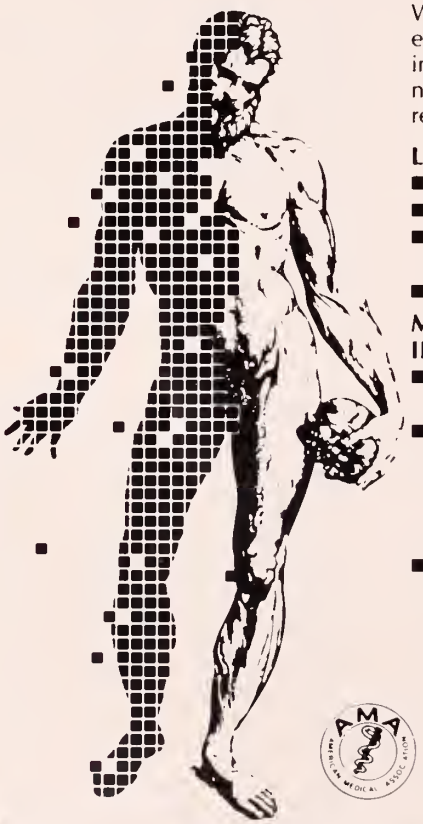

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Uncompensated care among Wisconsin physicians

Salvador Carranza, Jack Handley, Victoria Ralph, Kristine Wildner, and Daniel Yeazel, Programs in Health Management, UW–Madison

Wisconsin physicians appear to be providing an ever-increasing amount of uncompensated care, mainly through inadequate reimbursements under government programs, according to a pilot study by the University of Wisconsin–Madison Graduate Programs in Health Management. The study, which was supervised by the SMS Committee on Health Care, Quality, Costs, and Utilization, also found that losses from uncompensated care are being recouped primarily through cost-shifting to other patients and cuts in physician incomes.

The pilot study was undertaken in September 1988 to determine the amount of uncompensated care provided by Wisconsin physicians and its effects on the quality and accessibility of health care. Specifically, it aimed to provide descriptive statistics on the amounts and effects of uncompensated care and serve as the framework for a more comprehensive study in the future.

Methods

The pilot study consisted of a written survey and follow-up interview. Twenty-four clinics of different sizes from across the state were contacted by telephone, invited to participate, and assured of confidentiality. The survey was sent only to consenting clinics. Three non-participating clinics reviewed the survey and provided comments, which were used to develop an instructional sheet accompanying the survey.

For the purposes of this pilot study, uncompensated care was defined as uncollectible accounts (bad debts and incomplete or delayed bill payments), prospectively determined charity care, and losses incurred from government programs (Medicare, Part B, and Medicaid).

The survey comprised three sections. The first part asked for a breakdown of uncompensated care, the second asked the clinics to report on the types of patients' insurance and the amount of insurance coverage as a percent of total visits, and the third part asked for information on clinic operations. Data on these items were sought for 1983, 1987, and 1988 (estimated).

Results

Thirteen clinics—three with fewer than 15 physicians, seven with 15 to 75 physicians, and three with more than 75 physicians—returned the

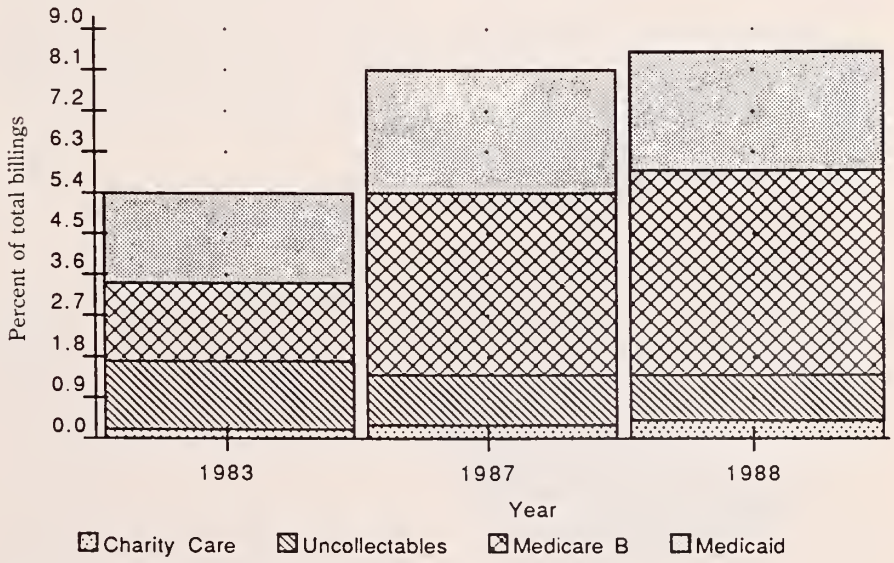

Fig. 1—Uncompensated care as a percent of total billings.

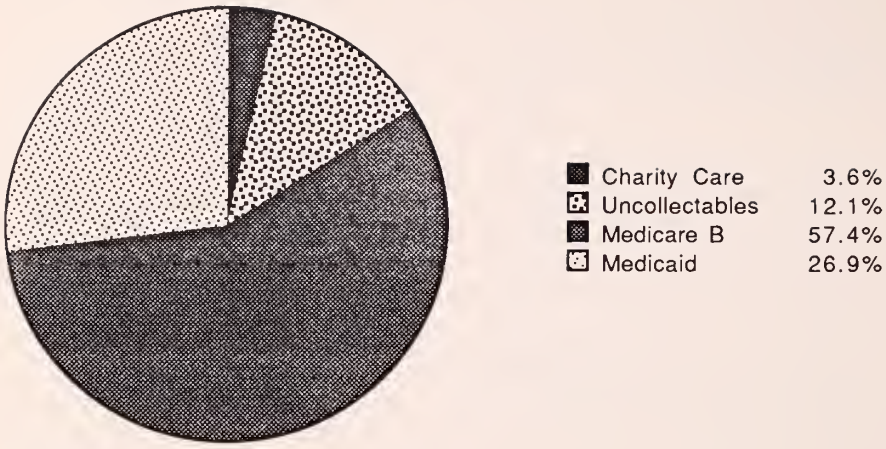

Fig. 2—Total uncompensated care for 1988.

survey with usable data. Only six clinics were able to supply information for all three of the requested years. The 13 clinics represented 726.5 physicians, and the six-clinic subgroup represented 490 physicians.

Moreover, the pilot study revealed that uncompensated care, as a percentage of total billings, is increasing. In the subgroup of six clinics, it grew from 5.4% in 1983 to 8.5% in 1988 (Fig 1). The larger group confirmed this trend.

Components of uncompensated care. Losses from Medicare accounted for more than half (57.4%) of uncompensated care provided by Wisconsin physicians in 1988 and was the single largest component (Fig 2); in 1983 Medicare was the second largest component at 31.6% (Fig 3). Medicaid losses, which was the largest element in 1983 (37.4%), dropped to second place in 1988 (26.9%). Uncollectibles decreased significantly as a percentage of total uncompensated care, but did not change in rank, and charity care remained the smallest factor in uncompensated care.

Insurance coverage. In this study, the percent of privately insured patients decreased by nearly 3% in just one year (from 58.4% in 1987 to 55.7% in 1988), while the percent of Medicare patients increased from 25.5% to 27.8% over the same period. The percent of Medicaid, uninsured and general relief patients remained relatively stable.

Operations analysis. Although no clinic was able to provide complete data for this section, 11 clinics submitted data that were adequate for a comparison of five parameters for 1987 and 1988, and six of these provided data for all three years.

A comparison across years in both the larger group and the smaller subset demonstrated an increasing volume and a commensurate increase in staffing and hours of operation. In both groups the total number of visits per year rose. In the group of six, for example, there were a total of 1.2 million visits in 1983 and an estimated 1.7 million visits in 1988. The number of physicians on staff, however, also increased, and when the number of visits was divided by the number of physician full time equivalents (FTEs), only a small change in this staffing ratio was demonstrated (3,335 visits per FTE in 1983 *v* 3,451 in 1988).

Furthermore, the number of nonphysician employees increased over the period of this study, as did the hours of operation. Finally, billings after adjustment for losses due to uncompensated care rose from $87.49 per visit in 1983 to $112.95 in 1988 in the group of six clinics.

Upon completion of the survey, the 13 clinics were interviewed by telephone. When asked specifically how they cover their losses from uncompensated care, two thirds said losses were shifted, at least in part, to private pay patients. Other ways of covering losses included decreases in physician income and limits on capital purchases.

These interviews also revealed that clinics are concerned about decreasing revenues from Medicare and increasing paperwork.

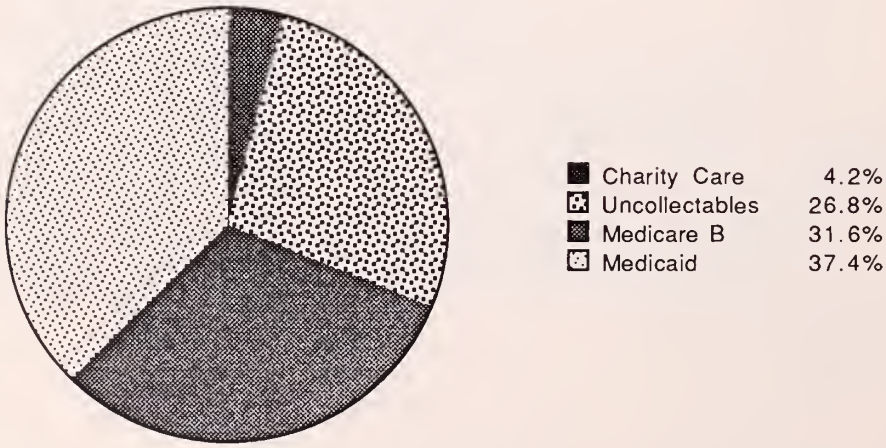

Fig 3.—Total uncompensated care for 1983.

Conclusion

In our study, uncompensated care by physicians appears to result primarily from income lost through government reimbursement policies—particularly Medicare—rather than charity care or the service for the uninsured. From conversations with clinic management and physicians, it appears that the lack of data on charity care is mainly due to incomplete documentation. It also seems that the absence

of significant numbers of uninsured patients is a result of clinics' referring these patients to hospitals—in particular, to emergency service departments. In response to the losses from government programs, clinics seem to be shifting costs primarily to private pay patients with some of burden given to physicians. Finally, this study did not find evidence that these losses affect the provision of medical services.

The SMS's Board of Directors in December 1988 asked the SMS staff involved in the pilot study to draw up an outline for a more comprehensive survey along with possible funding sources. The plan will be presented to the Committee on Health Care Quality, Costs and Utilization and the board later this year.

Public health
Chronic disease mortality and risk factors in Wisconsin, 1986

Patrick L. Remington, MD, MPH, and Mark E. Moss, DDS, Madison

"Of the ten leading causes of death in the United States, at least seven could be substantially reduced if persons at risk improved just five habits: diet, smoking, lack of exercise, alcohol abuse, and the use of antihypertensive medication."[1]

Over the past 30 years, epidemiologic research has identified causes of many chronic diseases. This research has demonstrated not only the specific behaviors, occupations, or environmental exposures that increase the risk of developing disease, but more importantly, the *magnitude* of this risk (called the relative risk). For example, research has demonstrated that cigarette smokers are about ten times more likely to develop lung cancer, and about twice as likely to have a heart attack, as nonsmokers. Using this epidemiologic information, it is possible to estimate the contribution of various risk factors to chronic disease mortality in Wisconsin.

Methods

To estimate the contribution of risk factors to chronic disease mortality in Wisconsin, we used a computer program distributed by the Centers for Disease Control called "Population Attributable Risk." This program combines information from two types of epidemiologic data—relative risk and risk factor prevalence—to determine the population attributable risk, this is, the proportion of chronic diseases which can be attributed to various risk factors.[2]

The relative risk (RR) is a measure of the magnitude of increased risk among persons with the risk factor and the prevalence (P) is the proportion of individuals in the population who have the risk factor. The population attributable risk (PAR) is computed thus:[3]

$$PAR = P(RR-1)/(1+P(RR-1)).$$

For example, in 1986, 26% of Wisconsin residents over the age of 18 were smokers. Combining this prevalence with the increased risk of having a heart attack (RR = 1.8) suggests that about 17% of heart attack deaths in Wisconsin were attributable to smoking $(.26*(1.8-1))/(1+.26(1.8-1) = 17\%)$.

We used information from the 1986 Behavioral Risk Factor Survey to determine the prevalence of the risk factors (P) in Wisconsin.[4] Smoking is the percent of adults who currently smoke; overweight is the percent of adults weighing more than 120% of ideal weight; high blood pressure is the percent of adults who report being told by a physician on more than one occasion that they have high blood pressure; physical inactivity is defined as a combination of a sedentary occupation and less than one hour per

Continued on page 29

Series coordinators

The Wisconsin Division of Health's Henry Anderson, MD, chief of the Section of Environmental and Chronic Disease Epidemiology, and Patrick Remington, MD, are coordinating this public health series for the *Wisconsin Medical Journal*. The division, with funding from the Centers for Disease Control, is developing a comprehensive, state-based chronic and environmental disease surveillance system. The system involves routine reporting of surveillance information to Wisconsin physicians. Future articles will address specific chronic diseases and their associated behavioral or environmental risk factors. Drs Anderson and Remington welcome your comments on this and all subsequent reports.

Dr Remington is a medical epidemiologist in the Section of Environmental and Chronic Disease Epidemiology, Wisconsin Division of Health. Dr Moss is a graduate student at the University of Wisconsin–Madison. Reprint requests to: Patrick Remington, MD, Wisconsin Division of Health, 1 W Wilson St, Madison, WI 53701-0309. Copyright 1989 by the State Medical Society of Wisconsin.

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Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

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Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

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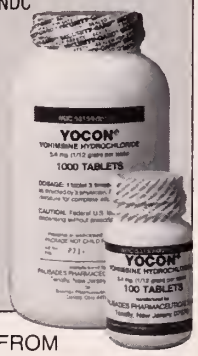

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BRIEF SUMMARY

CONTRAINDICATIONS
There are no known contraindications to the use of sucralfate.

PRECAUTIONS
Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS
Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE
There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION
The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

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Reference:

1. Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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Please see brief summary of prescribing information, and reference on adjacent page.

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Continued from page 25
month of vigorous leisure time activity (eg, jogging, swimming) and less than four hours per month of mild leisure activity (eg, walking, gardening); and heavier alcohol use is defined as drinking more than 60 drinks per month.

Results

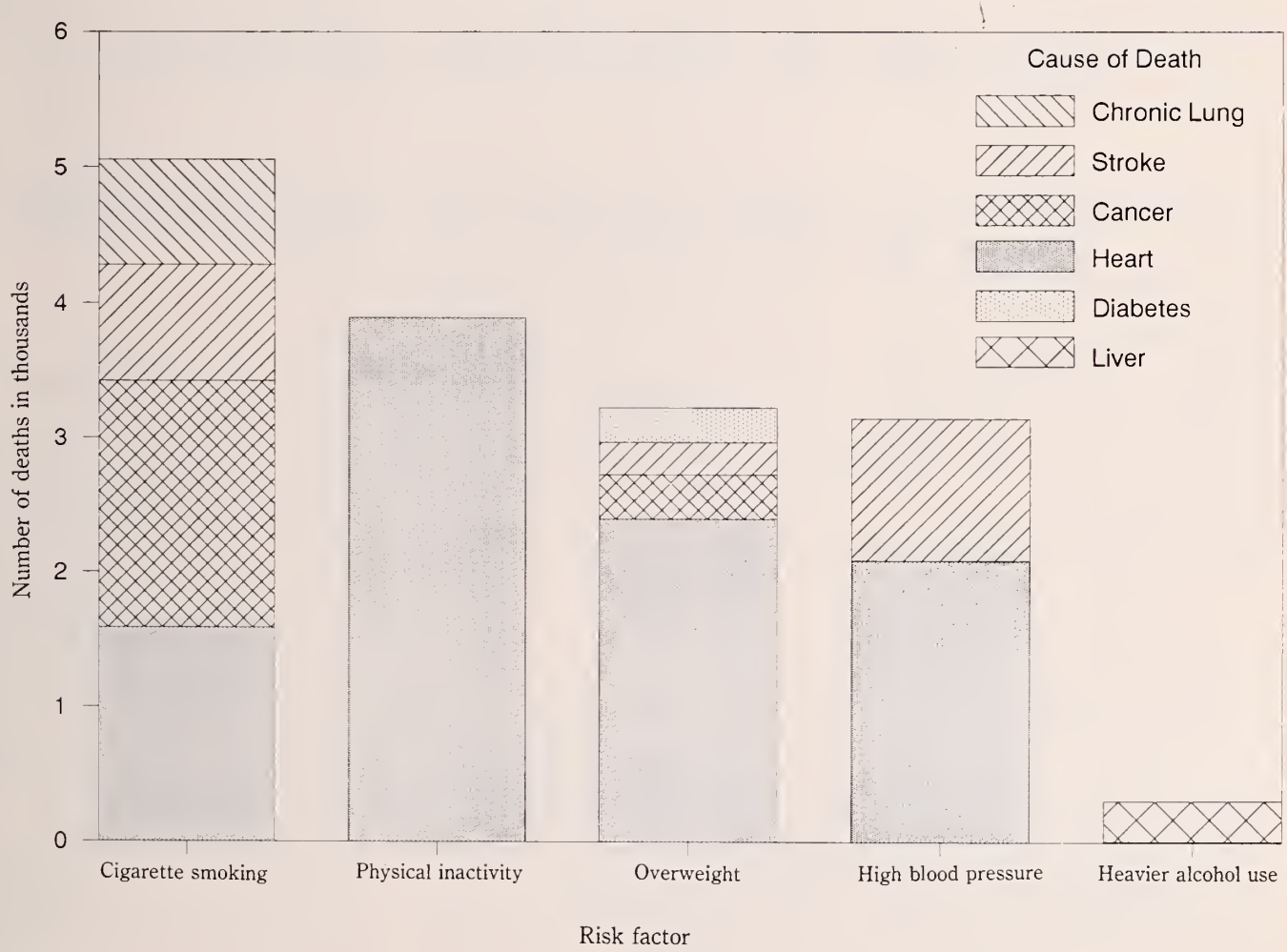
In 1986, 32,489 deaths were caused by one of six chronic diseases—heart disease, cancer, stroke, diabetes, chronic lung disease, and liver disease—accounting for about 75% of the 42,027 deaths in Wisconsin that year (see Table). Almost two thirds of all deaths were caused by cardiovascular disease or cancer.

Risk factors associated with these chronic diseases are common in Wisconsin. According to self reports from the Behavioral Risk Factor Survey, 26% of adults smoke, 29% are overweight, 16% report having high blood pressure, 55% are physically inactive, and 11% are heavier alcohol users.

According to the population attributable risk analysis, more than 15,000 (48%) of the 32,489 chronic disease deaths can be attributed to one or more of five modifiable risk factors. Cigarette smoking was associated with the greatest number of chronic disease deaths in 1986, followed by physical inactivity, being overweight, high blood pressure, and heavier alcohol use (see Figure).

Comment

The results presented herein probably underestimate the chronic disease burden from risk factors in Wisconsin. First, some factors, such as inadequate screening for cancer, were not considered. Also, morbidity and health care costs were not included in this analysis. A national consultation on health policy at the Carter Center in 1984 estimated that 70% of hospital days, 85% of direct personal health care costs, and 80% of deaths were attributable to 14 health risk factors.[5] These totals are so large that changes in the analytic model used have little impact on the major conclusion of that report: *A majority of all deaths are related to potentially*



Fig—Chronic disease deaths attributable to risk factors: Wisconsin, 1986.

Table.—Number of deaths caused by six major chronic diseases, Wisconsin, 1986

Cause of death	No.	Percent
Cardiovascular disease	17,345	41%
Cancer	9,392	22%
Stroke	3,311	8%
Chronic lung disease	1,361	3%
Diabetes	706	2%
Liver disease	374	1%
Other causes	9,538	23%
All causes	42,027	100%

modifiable risk factors, and are, therefore, premature.

The evidence supporting the relationship between risk factors and disease is strong and consistent. The challenge lies in discovering effective and acceptable methods to alter these risk factors, thereby reducing the consequent morbidity and premature mortality in Wisconsin.

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5. Foege WH, Amler RW, White CC: Closing the gap—report of the Carter Center health policy consultation. *JAMA* 1985;254:1355–1358.

Interprofessional code

The number of operating Health Maintenance Organizations (HMOs) in the United States continued to grow in 1987, but at a slower rate than during previous years, according to a report by Marion Laboratories, Inc, of Kansas City. The study found that the number of operating HMOs rose by 11.9% in 1987 compared to increases of 29% in 1986 and 27% in 1985. The number of HMOs under development decreased to 30 last year from 56 in 1986, bringing the total number of HMOs to 737.

The study also found that the number of HMO enrollees increased in 1987 by 16.8% to 31 million, nearly double the number reported in 1984, although it said the rate of growth appears to be slowing. Independent practice associations (IPAs) continue to be the most popular type of HMO.

In Wisconsin, 23.5% of all residents are enrolled in an HMO, the third highest enrollment percentage behind Minnesota with 27.9% and California with 27.7%.

Walking doctors directory

Walking World magazine is assembling the first directory of health professionals who walk and recommend walking to their patients as a preventive, rehabilitative and therapeutic exercise. The project's goal is to provide walkers from across the US with a network of physicians and other health professionals who are sympathetic to walkers' needs.

To be published by McGraw-Hill in 1990, the directory will list physicians by both location and specialty.

There is no obligation for being listed in the *Walking Doctors Directory*. Interested physicians can send for the free profile questionnaire by writing to: *Walking Doctors Directory, Walking World*, PO Box K, Gracie Station, New York, NY 10028, or by calling 212-879-5794.

HMO growth slows

Informal meetings last fall between J D Kabler, MD, SMS president, and John Walsh, JD, State Bar president, have led to the formation of a special liaison committee to develop an interprofessional code. The code, which was last revised more than a decade ago, will help define physicians' and lawyers' professional relations and their mutual obligations to patients and clients. The committee will also discuss general issues related to the practices of medicine and law.

Physician members of the committee are: Gerald Kempthorne, MD, of Spring Green; Peter Eichman, MD, of Madison; Kenneth M. Viste, Jr, MD, of Oshkosh; and Joseph DiRaimondo, MD, of Manitowoc. Dr Kabler, as SMS president, will also serve on the committee.

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Limits on medical malpractice claims in Wisconsin

In Wisconsin, physicians employed by state or local governments function under a different system for handling medical malpractice claims than the system imposed on privately practicing physicians.

Physicians not employed by the government must carry unlimited liability insurance coverage through a carrier for their primary insurance and through required assessments of the Patients Compensation Fund, which pays all claims in excess of the primary insurance threshold (now $400,000). There is no limit on the total amount that may be awarded to a plaintiff, and a limit of $1 million per claim on awards for noneconomic damages.

By contrast, physicians employed by the State of Wisconsin are insured through the state's self-funded liability program, and do not pay into the Patients Compensation Fund. By law, a plaintiff's recovery in a medical malpractice claim (or any other tort claim) against the state is limited to $250,000 per defendant. This $250,000 cap on liability is a limit on the total recovery per defendant, not just on the noneconomic damage component of an award.

In 1986, as part of the passage of 1985 Wisconsin Act 340, the Legislature directed several state agencies to study and report on the impact of the state's current system for paying medical malpractice claims against state-employed health care providers. In its study, the committee—consisting of representatives from the UW system and the departments of administration, health and social services, justice, and veterans affairs—found that the current system for state-employed physicians was significantly less costly than the system for private-sector physicians. Specifically, the committee found that if state-employed health care providers had been required in 1986–87 to purchase the same liability coverage as that required for other physicians, the cost to the state would have risen from $514,401 to at least $2,156,894 and possibly to as much as $8,025,820.

The committee also found that from 1975–76 to 1986–87, the current state system paid a total of $2,223,018 on a total of 47 claims. The average yearly payout was $202,093 and the average payout per claim paid was $47,298. This contrasts with average payouts per claim of $95,519 in the private sector for 1987, and $112,901 for 1988, for all claims reported and entered to date by the Office of the Commissioner of Insurance. For claims paid by the Patients Compensation Fund, in 1986–87 the Fund paid an average of $521,688 per claim on 24 claims, and in 1987–88 paid an average of $554,356 on 40 claims.

Perhaps most significantly, the committee found that the cap was not a barrier to fair settlements with claimants. The report states, "The cap assists in the prompt settlement of claims prior to litigation . . . Caps on damages, particularly on those for pain and suffering, are a recognition that extraordinary awards are a societal cost that may not be affordable. Based on this committee's knowledge of the state's liability experience, the committee has not observed a practical adverse impact on patients because of the cap on liability."

The committee concluded that, rather than changing the state system to align it with the private sector, "the opposite should be considered; what exists in the private sector should more closely resemble the state system. The state has established and proved that tort liability can work with sufficient restrictions to protect against catastrophic financial costs to the state while at the same time affording victims reasonable and adequate recovery for losses." The committee stated that it believes the present state system is fair and that it protects the rights of patients while controlling costs.

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Medical Examining Board

During 1988, the Wisconsin Department of Regulation and Licensing completed 328 investigations of complaints lodged against physicians. Formal disciplinary actions were begun against 44 physicians and one physical therapist, based on investigations of 89 patients. The Medical Examining Board issued final decisions in proceedings against 31 licensees, not all of whom were physicians, representing the culmination of investigations involving 114 patients.

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California's cap on noneconomic damages

California's experience shows that tort reforms in medical liability—particularly limits on noneconomic damage awards—can have a significant influence on medical liability insurance premiums. In 1975, when California was at the forefront of the nation's liability crisis, the state enacted the Medical Injury Compensation Reform Act (MICRA), which contained a $250,000 limit on noneconomic damages, provisions to offset awards with payments received from other collateral sources, limits on attorneys' contingency fees, and several other provisions.

The $250,000 limit on noneconomic damages was challenged and was found to be constitutional by the California Supreme Court. The case was appealed to the US Supreme Court, which in 1985 dismissed the appeal for lack of "a substantial federal question," by a vote of eight to one.

Between 1975 and 1987, medical liability insurance rates in California went from being among the *highest* in the country to among the *lowest*. Growth in insurance rates in California slowed dramatically, particularly after the $250,000 limit on noneconomic damages passed its final constitutional test. According to *Medical Liability Monitor*, an independent news service, in 1987, "For the first time in the history of *Medical Liability Monitor* rate surveys, California failed to make the annual 'big 10' list of most expensive states in which to buy professional liability insurance. Even more surprising is California's rank as seventh on the 1987 list of the 'little 10' least expensive states." (*Medical Liability Monitor*, Sept 23, 1987).

A useful comparison in considering the effect of the $250,000 limit, is to examine rates charged by the same company for policies sold in different states. Medical Insurance Exchange of California (MIEC) operates in California, Idaho, Alaska, Nevada and Hawaii. Annual rate increases between 1976 and 1987, for MEIC's policies averaged 6% in California, while the annual average increase in the four other states ranged from 8% to 18%.

Even more dramatic is the comparison over time of the change in the highest rates in California (typically rates charged to so-called high-risk specialists such as neurosurgeons and obstetricians) with the highest rates in other states. In 1978, the maximum premium for coverage of $1 million per incident, $3 million per year, in California was $24,000; in Illinois, $21,400; in Florida, $16,800; and in Ohio, $5,470. By 1987, the California rate had grown to $40,156, an increase of 67%, but the Illinois rate had tripled to $63,752 (198%); Florida hit an astronomical $184,910 (1,001%); and Ohio's rate rose to $65,831 (1,103%).

Wisconsin's rates are not directly comparable to those cited above, since Wisconsin physicians must purchase primary coverage of $400,000 per incident and $1 million per year and must pay an assessment to the Patients Compensation Fund for coverage of all awards or settlements in excess of the primary coverage. It is worth noting, however, that in 1980 a Wisconsin neurosurgeon paid $8,396 for primary coverage and Fund assessment, compared to $24,000 paid by a California neurosurgeon (1978); in 1987 the same Wisconsin neurosurgeon paid $52,775, an increase of 529% over eight years, compared to California's 67% increase over ten years.

If you have questions, or would like to know more about the California experience with caps on noneconomic damages, contact the SMS Division of Public Affairs.

Physicians asked to help in occupational injury study

Physicians are being asked to report patient illnesses and injuries that appear to be work related to the Wisconsin Division of Health. The department's Section on Environmental and Chronic Disease Epidemiology has received a grant from the Centers for Disease Control to improve the surveillance of occupational diseases and injuries in Wisconsin. The specific conditions that are reportable are: carpal tunnel syndrome, occupational asthma, hypersensitivity pneumonitis, pneumoconioses, amputations, and lead poisoning.

Physicians who agree to participate will not be expected to do more than report the illness or injury, and any record review necessary will be done by a nurse on the division's staff. The division will provide physician reporters with feedback, including statistical analyses of the case data.

Physicians interested in participating should contact Dee Higgins, the public health nurse coordinator, at 608-267-3256, or Henry Anderson, MD, chief of the Section on Environmental and Chronic Disease Epidemiology at 608-266-1253.

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Medical malpractice limits across the nation

Statutes limiting awards in medical malpractice cases vary from state to state. Most commonly, states with such statutes have acted to limit the amount of noneconomic damages that may be awarded in a medical malpractice action, or have placed limits on noneconomic damages in all tort actions, including medical malpractice. Some states have limited the total amount that may be recovered in a medical malpractice action.

Ten states—Kansas, Alaska, Colorado, Hawaii, Maryland, Minnesota, New Hampshire, Washington, Idaho, and Oregon—limit noneconomic damages in all tort actions, usually referred to as generic caps. Three of these have exclusions for specific areas of noneconomic damages, and seven cover all noneconomic damages.

Ten states—California, Missouri, Utah, West Virginia, Wisconsin, Alabama, Colorado, Kansas, Massachusetts, and Michigan—limit noneconomic damages specifically in medical malpractice actions. Two of these states, Colorado and Kansas, have limits specifically on damages in medical malpractice as well as generic caps. Two states, Massachusetts and Michigan, exclude certain types of damages from the limit, and the other eight cover all noneconomic damages. Five states have limits of $250,000 or less—California, Utah, Colorado, Kansas, and Michigan. Only West Virginia ($1 million), Wisconsin ($1 million) and Massachusetts ($500,000) have caps over $400,000.

In addition, eight states—Indiana, Virginia, Louisiana, Nebraska, New Mexico, South Dakota, Colorado, and Kansas—limit the total amount that may be recovered in a medical malpractice action, or limit the total award except for payments for future medical costs. These limits range from $500,000 to $1 million on *total* awards. Colorado and Kansas limit recovery for noneconomic damages as well as limiting total awards.

Overall, 24 states have limits currently in force on recoveries in medical malpractice actions.

In a number of states, laws limiting awards have been challenged on constitutional grounds. The results of these challenges have been mixed: Similar laws, challenged on the same grounds, have been upheld in one state but struck down in another. The most well-known and well-tested law is California's $250,000 cap on noneconomic damages in medical malpractice actions. California's cap was upheld by the California Supreme Court, and was appealed to the US Supreme Court, which declined to act on the case and let the cap stand. Caps on total damages in Indiana, Louisiana, Nebraska and Virginia were also challenged and upheld. On the other side of the coin, caps on total damages awarded in medical malpractice actions were thrown out in Illinois, North Dakota, Texas, and Idaho, and caps on noneconomic damages in medical malpractice actions were thrown out in Illinois, Texas, and Florida.

Major elements in determining whether a cap is constitutional appear to be a clear legislative finding of a problem that affects the citizens (eg, access to health care), and a relationship between the problem and the legislative remedy (eg, reductions in liability premiums as a result of limits on awards will improve access by enabling health care providers to offer services in certain areas).

If you have questions, or would like further information, contact the SMS Division of Public Affairs.

Unauthorized company selling insurance in Wisconsin

The SMS has been asked by the Office of the Commissioner of Insurance (OCI) to alert physicians that a company known as Medical Liability Purchasing Group, Inc. of Indiana does not meet the state's requirements to solicit business in Wisconsin. According to Dan Bubolz, chief of the Patients Compensation Fund, any physician who participates in the fund must purchase professional liability insurance from a company that is authorized to do business in the state or is an approved unauthorized insurer acceptable to the OCI. Bubolz said he had received a letter from a physician inquiring about the company.

The OCI reminds physicians that, when solicited by any insurance company or purchase group, they should ask whether the insurer is licensed or authorized to do business in Wisconsin. When in doubt, the physician should contact Robert Walker at the OCI, 123 W Washington Ave, PO Box 7873, Madison, WI 53707; telephone, 608-267-2239.

"The key," according to Bubolz, "is to work with a reputable company and know whom you're doing business with."

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Linton, Barbara (D)	74	Eau Claire	5B-E	266-7690
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Prosser, David (R)	57	Appleton	205-W	266-3070
Radtke, Randall (R)	37	Lake Mills	335A-N	266-3790
Roberts, Virgil (D)	94	Holmen	112B-W	266-0631
Robson, Judith (D)	45	Beloit	109-N	266-9967
Rohan, Sue (D)	48	Madison	118-W	266-5342
Rosenzweig, Peggy (R)	98	Wauwatosa	334-N	266-9180
Rutkowski, James (D)	82	Hales Corners	128-W	266-8590
Schmidt, Gary (R)	5	Kaukauna	325-W	266-2418
Schneider, Marlin (D)	72	Wisconsin Rapids	4-W	266-0215
Schneiders, Lolita (R)	97	Menomonee Falls	314-N	266-3796
Schultz, Dale (R)	50	Hillpoint	306-W	266-8531
Seery, Thomas (D)	13	Milwaukee	23-N	267-7990
Stower, Harvey (D)	28	Amery	13-E	267-2365
Swoboda, Lary (D)	1	Luxemburg	13-W	266-5350
Tesmer, Louise (D)	19	Milwaukee	112A-W	266-8588
Thompson, Robert (D)	80	Poynette	13-N	266-3404
Travis, David (D)	81	Madison	240-N	266-5340
Tregoning, Joseph (R)	51	Shullsburg	7-E	266-7502

Turba, Wilfrid (R)	27	Elkhart Lake	304-W	266-8530
Underheim, Gregg (R)	54	Oshkosh	307-N	266-2254
Vanderperren, Cletus (D)	89	Green Bay	32-N	266-0616
Van Dreel, Mary Lou (D)	90	Green Bay	111-N	266-5840
Van Gorden, Heron (R)	69	Neillsville	302-W	266-7461
Vergeront, Susan (R)	60	Cedarburg	312-W	267-2369
Volk, John (D)	36	Wabeno	112-N	266-3780
Walling, Esther (R)	55	Neenah	305-W	266-5719
Welch, Robert (R)	41	Redgranite	318-N	266-8077
Williams, Annette (D)	17	Milwaukee	18-E	266-0960
Wimmer, Joseph (R)	32	Waukesha	335D-N	266-9650
Wineke, Joseph (D)	79	Verona	232-N	266-3520
Wood, Wayne (D)	44	Janesville	121-W	266-7503
Young, Rebecca (D)	76	Madison	110-N	266-3784
Zeuske, Cathy (R)	4	Shawano	309-N	266-3097
Zien, David (R)	68	Gilman	324-N	266-9172
Zweck, Brad (D)	86	Mosinee	28-W	266-1182

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Continued on page 40

Most patients need only one.

K-DUR™ 20 Microburst Release System™
(potassium chloride) 20mEq Sustained Release Tablets

A daily prophylactic dose in a single tablet.

Please see next page for brief summary of prescribing information.

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World leader in drug delivery systems.

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K-DUR™ Microburst Release System™
(potassium chloride) Sustained Release Tablets

INDICATIONS AND USAGE: BECAUSE OF REPORTS OF INTESTINAL AND GASTRIC ULCERATION AND BLEEDING WITH SLOW-RELEASE POTASSIUM CHLORIDE PREPARATIONS, THESE DRUGS SHOULD BE RESERVED FOR THOSE PATIENTS WHO CANNOT TOLERATE OR REFUSE TO TAKE LIQUID OR EFFERVESCENT POTASSIUM PREPARATIONS OR FOR PATIENTS IN WHOM THERE IS A PROBLEM OF COMPLIANCE WITH THESE PREPARATIONS.

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.

2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.

3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS**.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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Continued from page 39

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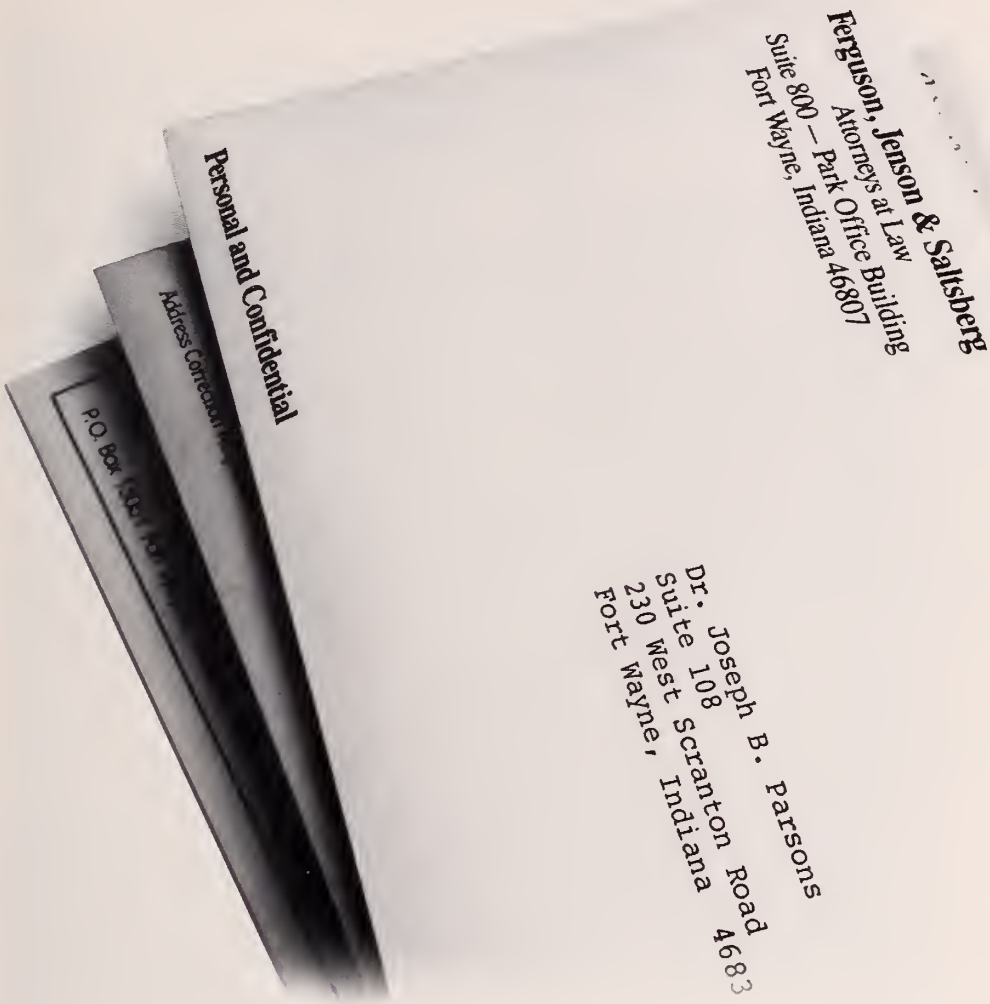
TeWinkle, William (D)	9	Sheboygan	136-S	266-2056
Ulichny, Barbara (D)	4	Milwaukee	34-S	266-5830
Van Sistine, Jerome (D)	30	Green Bay	14-S	266-5670
Weeden, Timothy (R)	15	Beloit	334-S	266-2253

Continued on page 42

Crisis in black and white.



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Continued from page 40

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Best wishes,
with gratitude,
on
the retirements of:

Joseph A. Manago, MD

James R. Nellen, MD

Albert C. Yard, MD

The Radiology Department staff at the St Luke's Medical Center offers Dr Manago, Dr Nellen and Dr Yard heartfelt thanks for their contributions to the teaching and practice of radiology. Throughout their illustrious careers, they have demonstrated a dedication to medicine that made them not only leaders in their field, but examples for their peers.

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1. Data on file, Lilly Research Laboratories.

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AXID®

nizatidine capsules

Brief Summary

Consult the package literature for complete information.

Indications and Usage: Axid is indicated for up to eight weeks for the treatment of active duodenal ulcer. In most patients, the ulcer will heal within four weeks.

Axid is indicated for maintenance therapy for duodenal ulcer patients at a reduced dosage of 150 mg h.s. after healing of an active duodenal ulcer. The consequences of continuous therapy with Axid for longer than one year are not known.

Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General* — 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizabdine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests — False-positive tests for urobilinogen with Multistix® may occur during therapy with nizabdine.

Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizabdine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizabdine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported; it was not possible to determine whether these were caused by nizabdine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizabdine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

New nursing home law creates confusion

A federal law intended to prevent the inappropriate placement of mentally ill and developmentally disabled persons into nursing homes is creating confusion and uncertainty among hospital and nursing home officials and physicians in the state.

The law, part of the Omnibus Budget Reconciliation Action of 1987 (OBRA–87), requires pre-admission screening for all patients admitted into nursing homes regardless of payment source who are mentally ill or developmentally disabled. The law became effective Jan 1, 1989.

The law does provide exemptions to the two-level screening process for patients who need convalescent care, are terminally ill, or have certain diseases—such as Parkinson's disease, congestive heart failure, chronic obstructive pulmonary disease, dementia, or Alzheimer's disease.

Although the federal government has not developed rules for implementing the law, states are required to carry it out. The Department of Health and Social Services has released rules, but the county boards, hospitals and nursing homes have been uncertain about how to conform to the new requirements. In January, the Wisconsin Hospital Association expressed its concerns to the department that many hospital patients who are ready for discharge into nursing homes cannot be placed and are forced to remain in the acute-care setting until the screening process can be completed.

In February, a meeting was held among state officials, hospital, nursing home and county board representatives, and SMS physician and staff to clarify the situation, and an advisory committee was established to guide those affected by the law.

The SMS Aging Committee is taking the lead in studying the issue and is requesting physicians with information to contact Kay Jewell, MD, committee chair, at 608-244-2411, extension 292. In the meantime, physicians are advised to provide the most complete information possible when completing the physician's plan of care (PPOC) form. Diagnoses and indications for antidepressants, neuroleptics, and anxiolytics should be included because they are used to determine the need for further screening.

New law regulates physician office laboratories

Physicians will have at least until Jan 1, 1990, to meet the requirements of a new law regulating physician office laboratories that was signed into law last fall. The Clinical Laboratory Improvement Amendments of 1988 require the establishment of laboratory certification standards for all clinical laboratories, including those in physicians' offices, which until now have not been regulated by the federal government. Wisconsin law currently provides certification standards for laboratories, but exempts those serving two or fewer physicians.

The new law requires laboratories to seek federal certification to conduct testing (either directly from the government or through a private accreditation organization recognized by the government) or to obtain a waiver if the lab meets criteria to be set forth in the new regulations. For previously unregulated labs the certification or waiver provision becomes effective Jan 1, 1990.

Certificates of waiver will be granted to laboratories that perform only very simple tests with a low probability of error. The secretary of the Department of Health and Human Services (DHHS) will determine the types of examinations and procedures that may be performed by laboratories receiving waivers. The laboratories will be exempt from inspection, proficiency testing and personnel standards. They will, however, be required to submit a detailed application to obtain the waiver.

Laboratories that do not meet the waiver standards will be required to apply for a certificate, which is valid for up to two years. Such laboratories must maintain a quality assurance and control program and meet personnel qualifications standards established by the secretary of DHHS. Laboratories also will be required to participate in a proficiency testing program. Under the law, certified laboratories will be subject to announced and unannounced inspections. For those not currently subject to federal regulation the standards of personnel and inspections would not apply until after July 1, 1991.

The program will be supported by fees paid by laboratories for the issuance and renewal of certificates, including a nominal fee for obtaining waivers. Additional fees will be charged for inspection and proficiency testing costs.

States will be able to apply to the DHHS to handle certification of laboratories within the state and may impose additional standards that are more stringent than the federal requirements. If federal requirements are more stringent than current state laboratory certification regulations, however, the federal requirements will preempt the state's.

Former state legislator joins forces with SMS

Michael Kirby recently joined the SMS as assistant director of the Division of Public Affairs, replacing Deborah Wilke, who was promoted to director of communications. Kirby comes to the SMS from Milwaukee County, where he served as a lobbyist for the past five years. He is also a former representative in the Assembly, having served on the Joint Finance Committee. Kirby will primarily be responsible for lobbying state agencies and the Wisconsin congressional delegation.

Mary Barham, a policy analyst with the Division of Medical Policy and Practice, has been named assistant director of the division.

Michael Kirby

Mary Barham

Physician briefs

Donald A. Wollheim, MD,* of Milwaukee, has resigned as an SMS District 1 director and will leave his practice to take a position with the Harvard Community Health Plan in Chelmsford, Mass. Dr Wollheim has also been a delegate and alternate delegate to the SMS, a member of the Commission on Public Information, chairman of the Public Education Committee of the Medical Society of Milwaukee County, and a member of the county society's Task Force on Cost Containment.

Donald P. Hay, MD,* of Milwaukee, has been appointed medical director of the geriatric psychiatry program of Sinai Samaritan Medical Center. He is an associate clinical professor of psychiatry at the University of Wisconsin Medical School, Milwaukee Clinical Campus, and at the Medical College of Wisconsin. He is also president-elect of the Wisconsin Psychiatric Association.

Thomas C. Meyer, MD,* of Madison, received the Distinguished Award of the Alliance for Continuing Medical Education at the group's annual meeting in San Francisco. Dr Meyer is the director of the University of Wisconsin–Extension Department of Continuing Medical Education and medical director of St Mary's Hospital Medical Center. The award recognizes his contributions to many national continuing medical education groups.

Lawrence H. Miller, MD,* recently joined the medical staff of the Gundersen-Mubarak Clinic in Tomah. A family practice physician with a subspecialty in adolescent medicine, Dr Miller has been in private practice in Waupun.

Judy M. Grisard, MD,* recently joined the River Falls Medical Clinic staff. She served residencies at North-

western University School of Medicine, Metropolitan Group Hospitals, and Lutheran General Hospital, all in Chicago. Before coming to River Falls, Dr Grisard practiced medicine in Amery.

Harry T. Whelan, MD, was recently appointed associate professor of neurology at the Medical College of Wisconsin. He has a joint appointment as associate professor of pediatrics and is based at the Children's Hospital of Wisconsin. Dr Whelan received his medical degree from the University of Wisconsin Medical School and served an internship and residency at the University of Florida in Gainesville. He was previously an assistant professor with Vanderbilt University Medical Center in Nashville.

Richard M. Webb, MD, recently joined the Whitewater Community Mental Health Counseling Center. A psychiatrist, Dr Webb received his medical degree from the University of Illinois and served a residency at the Medical College of Wisconsin in Milwaukee. He was previously in private practice in Lake Geneva.

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Larry J. Malewiski, MD,* was recently elected president of the Sheboygan Area Independent Physicians Association, Ltd. Dr Malewiski is a general practitioner in Sheboygan.

Holly M. Maes, MD,* recently joined the West Side Clinic, SC, Hospital Division, in Green Bay. Dr Maes graduated from the Medical College of Wisconsin in Milwaukee.

Kim A. Merriman, MD,* recently opened a medical practice in Shorewood. A family practice physician, Dr Merriman received his degree from the University of Wisconsin Medical School and completed a residency at St Mary's Family Practice Center in Madison.

Charles W. Troup, MD,* of Green Bay, was installed as president of the North Central Section, American Urological Association at the group's recent annual meeting. Dr Troup received his medical degree from Northwestern University Medical School and served a residency at the Medical College of Wisconsin. He is a fellow of the American College of Surgeons and a past president of the Wisconsin Urological Society.

Geoffrey C. Lamb, MD, was recently appointed assistant professor of general internal medicine at the Milwaukee County Medical Complex, which is affiliated with the Medical College of Wisconsin. Dr Lamb received his medical degree from Dartmouth Medical School and served an internship and residency at the University of Minnesota Hospitals in Minneapolis. He previously was with the Northeastern Ohio Universities College of Medicine.

James D. Kramer, MD,* of Wausau, recently retired after 21 years of practice at the Wausau Medical Center. He had served on the medical center's original board of directors and was president in 1974 and 1975. Dr Kramer received his medical degree from Case Western Reserve University in Cleveland and served an internship at Georgetown University in Washington, DC. He served residencies at Georgetown and Cleveland City Hospital.

Jerry M. Ingalls, MD,* was recently named medical director of the Monroe Clinic. Before coming to Monroe, Dr Ingalls had a general surgery practice in Paris, Ill. He is a past president of the Illinois State Medical Society and was a trustee for the Illinois Hospital Association from 1984 to 1987. Dr Ingalls received his medical degree from Duke University in Durham, NC, where he also completed an internship and research fellowship. He served a residency at the University of Oklahoma in Oklahoma City.

Richard D. Sautter, MD,* of Marshfield, was recently chosen as the first recipient of the Gwen D. Sebold Research Fellowship Award. The award was established by David Sebold, president and chief executive officer of Tombstone Pizza Corp in Medford, in honor of his late sister. The fellowship provides for an annual award of $5,000 to an outstanding researcher at the Marshfield Clinic to support continued research. Dr Sautter, who is a surgeon, was honored for his work on coronary artery disease. He is currently director of the Marshfield Medical Research Foundation and medical editor of the *Wisconsin Medical Journal.*

Kenneth M. Viste, Jr, MD,* of Oshkosh, was recently awarded the Personal Achievement Award by the Easter Seal Society of Wisconsin, Inc. The award is given each year to recognize the accomplishments of a Wisconsin resident with a physical disability. Dr Viste, who contracted polio as a teenager, is the immediate past president of the SMS. He is a clinical associate professor of neurology at the University of Wisconsin Medical School and an instructor

at the Winnebago County Mental Health Institute.

Raymond E. Skupniewicz, MD,* has been named director of the Racine Medical Clinic's newly created department of occupational health. Dr Skupniewicz, a family practitioner on the clinic's staff for 32 years, recently completed a residency in occupational medicine at Rutgers University in New Brunswick, NJ.

Paul E. Hankwitz, MD,* of Milwaukee, was recently named by the AMA's Board of Trustees to the National Advisory Committee for the Evaluation of Registered Care Technologist (RCT) Programs. Dr Hankwitz is assistant medical director for Northwestern Mutual Life Insurance in Milwaukee. The committee is charged with evaluating programs proposed by various health professional groups as solutions to the nursing shortage and overseeing the implementation of RCT pilot programs.

Phillip Fulkerson, MD, of Brookfield, was recently appointed assistant dean for medical education at the Medical College of Wisconsin. A specialist in cardiology, Dr Fulkerson previously was with the Ohio State University College of Medicine in Columbus. He received his medical degree from Ohio State and served a residency there as well; his internship was served at the University of Wisconsin–Madison.

Robert F. Burgfechtel, MD,* of Menomonie, recently joined the Prudential Insurance Company in Minneapolis as medical director for managed health care in the north central US region. A family practitioner, Dr Burgfechtel received his medical degree from the University of Iowa and a master of science degree in administrative medicine from the University of Wisconsin–Madison. He previously practiced with the Red Cedar Clinic, SC, in Menomonie, for 18 years, serving as medical director for the last two.

AMA Awards

The Wisconsin physicians listed below recently earned AMA Physician's Recognition Awards. They have distinguished themselves and their profession by their commitments to continuing education, and the SMS congratulates them. An * indicates a member of the SMS.

December 1988

Barr, John L., Beloit
*Berry, James S., Beaver Dam
Bond, John T., Williams Bay
*Capati, Nazario R., Neillsville
*Caplan, Robert H., La Crosse
*Cline, Ross L., Monroe
Condon, Robert E., Milwaukee
*Darling, Raymon E., Appleton
*Di Ulio, Robert A., Milwaukee
Engber, William D., Madison
*Flesch, James R., Milwaukee
*Gall, Randall J., La Crosse
*Gardner, James D., Waukesha
Gillis, Beth L., Tigerton
Goodman, Lawrence R., Milwaukee
*Gremmels, Frederick, C., Watertown
Kempton, Leo V., La Crosse
*Khan, Abdul H., New Richmond
*Long, Richard E., Viroqua
*Mc Fadden, Michael R., Sturgeon
*Polender, Bruce A., La Crosse
*Rowe, Donald M., Bradenton, Fla
*Rupley, David C., Stevens Point
Shalev, Yoseph, Whitefish Bay
*Sorensen, Charles C., Wisconsin Rapids
*Sweet, David Fraley, Fond du Lac
*Underberg, John T., Waukesha
*Vondrell, John J., Brookfield
*Wernick, Shelley, Milwaukee
*Wiegmann, Otto A., Brookfield
*Young, Laurens D, Milwaukee

Correction: In the January 1989 edition of the *WMJ*, the AMA awards listing for October 1988 incorrectly identified Dr Charles J. Gehring, of Sheboygan, as a nonmember of the SMS. Dr Gehring is a member in good standing.

County society news

Brown. Fifty members of the Brown County Medical Society were present at the February meeting to hear guest speaker, J D Kabler, MD, president of the SMS, speak on tort reform. New members accepted are MDs Dorothy J. Ganick, Shakti Narain, and Gregory L. Schulz, all of Green Bay.

Door-Kewaunee. At the January meeting, James McGovern, MD, spoke to 13 members on uses of chemotherapy in treating cancer and entertained questions afterward.

Fond du Lac. David M. Ebben, MD, was installed as president of the society at the January meeting. Twenty-four members were in attendance. Sang Yo Kim, MD, was accepted as a member. Paul Markowski, SMS field representative, spoke on the current political climate in the state relative to medical issues.

Manitowoc. Mike Hoftiezer, MD, and Mark Hendricks, MD, were accepted as members at the January meeting. The 28 members in attendance heard Henry Katz, MD, of Manitowoc, speak on Rogaine—the new treatment for baldness. SMS field representative Larry Martin reported

on SMS legislative activities, with an emphasis on tort reform, and congratulated the society for its high rate of WISPAC participation.

Marathon. Six members attended the February meeting and heard SMS field representative Larry Martin discuss the Coalition for Civil Justice Reform and the SMS's efforts on tort reform. The society decided to invite Sen Walter Chilsen, Rep Gregory Huber and Rep Brad Zweck to a breakfast meeting at the Wausau Medical Center in May. In February, the society sponsored a community meeting on radon and attracted a capacity crowd of more than 100.

Marinette-Florence. Twenty-six members attended the January meeting and heard Edward Lufkin, MD, of the Mayo Clinic, give a presentation on the relationship of estrogen replacement therapy and the treatment and prevention of osteoporosis. A question-and-answer period followed. Larry Martin, SMS field representative, discussed SMS legislative activities and stressed the importance of physician political involvement.

Milwaukee. In December, Thomas A. Reminga, MD, was installed as president of The Medical Society of Milwaukee County for the year 1989. At the January meeting Marcia J.S. Richards, MD, the new president-elect, reported on the 1988 elections. Dr Richards, who has served two years as secretary-treasurer, will become president in December 1989. John Ridley, MD, was elected secretary-treasurer; Russell S. Gonnering MD, and Donald P. Davis, MD, were elected to three-year terms as directors-at-large; and reelected as directors-at-large were DeLore Williams, MD, and Randle E. Pollard, MD.

Elected to two-year terms as delegates to the House were Albert H. Adams, MD, Patricia M. Barwig, MD, Samuel C. Craft, MD, Ian H. Gilson, MD, Russell S. Gonnering, MD, Paul E. Hankwitz, MD, Christina C. Keppel, MD, Brian W. Kennedy, MD, Thomas M. Kidder, MD, Stanley A. Korducki, MD, George M. Lange, MD, James A. Means, MD, Dean D. Miller, MD, Marcia J.S. Richards, MD, John E. Ridley, MD, Thomas L. Schlenker, MD, James P. Volberding, MD, John E. Whitcomb, MD, Jeffrey M. Weber, MD, D. Maclean Wilson, MD, and Carol E. Young, MD.

Alternate delegates elected for the years 1989 and 1990 are Mark R. Aschliman, MD, David G. Benzer, MD, Jeffrey J. Butler, MD, Robert P. Cronin, MD, James A. Cunningham, MD, James D. Dolan, MD, Reynaldo P. Gabriel, MD, Jeffrey M. Jentzen, MD, Raymond R. Johnson, MD, Roger P. Johnson, MD, Vijay V. Kulkarni, MD, Anthony J. Linn, MD, James P. Maney, MD, Raul Mateo, MD, Peter J. Parthum, MD, A.A. Sadoughian, MD, Paul J. Sienkiewicz, MD, and Burton A. Waisbren, MD.

Oneida-Vilas. Edward Ehrlich, MD, spoke to 22 members at the January meeting on the topic of Type I diabetes: the pros and cons of intensive treatment. Dr Ehrlich is a professor of medicine in the endocrinology section at the University of Wisconsin Hospital and Clinics. SMS field representative Larry Martin reported on SMS legislative activities on the seat belt law, tort reform, and mandatory assignment.

Outagamie. At the January meeting of the Outagamie County Medical Society, 21 members were present to hear Kenneth M. Viste, MD, of Oshkosh, speak on the RBRVS. Larry Martin, SMS field representative, answered questions from the members. John M. Elisberg, MD, of Appleton, was accepted in membership.

At the February meeting, 12 members heard Steven Kagen, MD, discuss syphilis and Lyme disease and scheduled a meeting with Rep David Prosser for later in the month.

Racine. Herbert Swick, MD, of the Medical College of Wisconsin spoke to 26 society members at the February meeting on "From Baroque to Blues: Musical Descriptions of Illness." Lois Riley, SMS field representative, provided a legislative update and announced a March meeting with Sen Joe Strohl.

Rusk. Steven Hadley, MD, of Duluth, Minn, was the guest speaker at the January meeting of the Rusk County Medical Society. He spoke on new concepts in office management of rheumatoid and osteoarthritis.

Winnebago. Thirty-two members and two guests were present to hear Phiroze L. Hansotia, MD, of Marshfield, speak on medical problems related to drivers licensing at the Winnebago County Medical Society meeting held in February. A short summary of the SMS's committee involving the Department of Transportation was provided by Thomas J. Luetzow, MD. Five delegates and alternates to the SMS House of Delegates were approved. They are MDs James L. Basiliere, Eric B. Wilson, George W. Arndt, Kevin F. Quinn, and Thomas J. Luetzow as delegates, and alternates are Johan A. Mathison, Timothy T. Flaherty, Gerald A. Gehl, James E. Cauley, and Deborah A. Wilson.

News highlights

The Monroe Clinic recently celebrated its 50th anniversary. Begun in 1939 with a medical staff of five physicians and 13 support staff, the clinic has grown to 61 physicians, 11 consulting physicians, three psychologists, two optometrists, and more than 250 support staff.

The Ripon Memorial Hospital staff has elected the following officers: David B. Rich, MD,* chief of staff; Jean E. Johnson, MD,* vice chief of staff; and Eduardo G. Arellano, MD,* secretary-treasurer. Dr Rich, a family practitioner, graduated from the University of Washington Medical School and completed a residency at St Michael's Hospital in Milwaukee. Dr Johnson, also a family practitioner, graduated from the University of Wisconsin Medical School and completed a residency at St Joseph's Hospital in Syracuse, NY. Dr Arellano, an obstetrician-gynecologist, completed his education at the University of St Thomas in the Philippines and Johns Hopkins University in Baltimore.

The St Mary's Hospital Medical Center staff in Green Bay recently elected John C. Gallagher, MD,* president, Michael D. O'Reilly, MD,* president-elect, and Michael J. Miskella, MD,* secretary.

The West Allis Memorial Hospital medical staff has elected Gerald A. Mundschau, MD,* chief of staff-elect, succeeding Francis I. Andres, MD,* who has begun his term as president. Other physicians elected as officers were: David N. Bellis, MD,* chief of obstetrics and gynecology; Thomas Dunigen, MD, chief of pediatrics; and John W. Bowman, MD,* chief of surgery.

The Marshfield Clinic's medical staff recently reelected Sidney E. Johnson, MD,* to a fourth consecutive term as president. A gastroenterologist, Dr Johnson joined the clinic staff in 1966 and served as medical director for nine years. Joining Dr Johnson on the executive committee are Paul L. Liss, MD,* vice president, Susan L. Turney, MD,* corporate secretary, Michael J. Kryda, MD,* treasurer, and Richard H. Ulmer, MD.*

St Michael's Hospital's medical staff in Stevens Point recently elected Stephen Bergin, MD, president. Other officers include John Gauder, MD, vice president, and E. Michael Schneeberger, MD,* secretary-treasurer.

Sacred Heart Hospital's medical staff in Eau Claire recently elected William C. Rupp, MD,* president. Thomas W. Hadley, MD,* was elected vice president, and Robert Braastad, MD, was chosen secretary-treasurer.

Obituaries

Edward Robert Brousseau, MD, 67, of Eau Claire, died April 29, 1988, in Eau Claire. Born May 30, 1921, in Clouquet, Minn, Dr Brousseau graduated from the University of Nebraska College of Medicine and completed his internship at Milwaukee County General Hospital. His residency in psychiatry was served at the University of Nebraska. Dr Brousseau was a member of the American Psychiatric Association, Eau Claire-Dunn-Pepin County Medical Society, the SMS, and the AMA.

Arthur C. Tompsett Jr, MD, 69, of Key Largo, Fla, died in June 1988. Born May 21, 1919 in Hesperia, Mich, Dr Tompsett graduated from the University of Michigan Medical School. His internship was served at the Detroit Receiving Hospital, and his residency training was completed at St Joseph Mercy Hospital in Ann Arbor. Dr Tompsett practiced radiology in Sheboygan until his retirement in 1983. He was a member of the American College of Radiology.

Harry R. Weil, MD, 71, of Lauderhill, Fla, died Nov 30, 1988, in Lauderhill. Born July 26, 1917, in Chicago, Ill, Dr Weil graduated from the University of Illinois Medical School and served his internship at the Illinois Research Hospital. Dr Weil had practiced in the Milwaukee area for many years. He was a member of The Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Helene; a daughter, Barbara Braun, of Shorewood, and a son, Richard, of Shorewood.

Anton Lindner, MD, 70, of Innsbruck, Austria, died in 1988. Born Jan 17, 1918, in Innsbruck, Dr Lindner graduated from the University of Innsbruck School of Medicine in 1941, and served his internship at St louis University, St Louis, Mo. His residency was completed at Cook County Hospital in Chicago, Ill. Dr Lindner was a member of the Dane County Medical Society, the SMS, and the AMA.

Floyd, W. Ernst, MD, 82, of La Crosse, died Dec 3, 1988, in La Crosse. Born Aug 1, 1906, in Wadena, Iowa, Dr Ernst graduated from the University of Iowa Medical School and served his internship at St Francis Hospital in La Crosse. He practiced in New Albin, Iowa, for ten years and returned to La Crosse. He

was on the medical staff of St Francis Medical Center and also was a member of the Family Health Center as both teacher and physician. He was a past president of the La Crosse County Medical Society. Surviving are his widow, Laurene; four daughters, Joyce Puk, of Cedar Rapids, Iowa; Shirley Pickel, of Palos Verdes, Calif; Colleen Gardner, of Long Beach, Calif, and Debbie Rankin, of Arvada, Colo.

Steven Chelecki, MD, 76, of Madison, died Jan 17, 1989, in Madison. Born July 15, 1912, in Poland, Dr Chelecki graduated from the Medical School of the University of Krakow, Poland, and served an internship at the Evangelical Hospital of Chicago. A residency was completed at the University of Michigan. He had been a member of the medical staff of the Mendota Mental Health Institute in Madison. He was a member of the American Psychiatric Association and the Wisconsin Psychiatric Association. Dr Chelecki is survived by his widow, Yvonne.

Benjamin I. Brindley, MD, 88, of Madison, died Jan 23, 1989, in Madison. Born on Jan 15, 1901, in Boscobel, Wis, Dr Brindley graduated from the University of Chicago-Rush Medical College in 1929, and served his internship at St Joseph's Hospital in Chicago. Dr Brindley served his residency in eye, ear, nose, and throat at the University of Wisconsin Hospitals in Madison. He practiced in Madison from 1932 until 1977. Dr Brindley was a member of the Dane County Medical Society, the SMS, and the AMA.

Charles A. Wunsch, MD, 69, of Milwaukee, died Jan 16, 1989, in Milwaukee. Born June 23, 1920, in Chicago, Ill, Dr Wunsch graduated from the College of Medicine of the University of Illinois, and served his internship at St Mary's Hospital in Detroit, Mich. His residency was completed at St Joseph's Hospital in Detroit. Dr Wunsch was a member of the American Psychiatric Association, former president of the Milwaukee Neuropsychiatric Society, a member of The Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Barbara; four daughters, Marie, Linda, Paula, Heather; three sons, Robert, David, Christopher; and two stepdaughters, Mary Zurowski and Kerry Bush; and one stepson, Timothy Busch.

Esther Kats, MD, 46, of La Crosse, died Dec 28, 1988, in La Crosse. Born May 6, 1942, in Zhitomer, USSR, Dr Kats graduated from Voronezh Medical Institute in Voronezh, USSR. She practiced medicine at the Pediatric Clinic, Novosibirsk, at the Psychiatric Hospital, Zhitomer, and at the Pediatric Clinic in Kishinev before coming to the United States in 1982 and completing an internship and residency at the Gundersen Medical Foundation-Lutheran Hospital, and at University of Minnesota Hospitals in Minneapolis. She joined the Gundersen Clinic medical staff in 1987. Surviving are her husband; and three children, Leonard, Larissa, and Aaron, all at home.

Henry Leo Dale, MD, 72, of Birmingham, Ala, died Jan 13, 1989, in Birmingham. Born Jan 1, 1917, in Kankakee, Ill, Dr Dale graduated from Meharry Medical College in Tennessee and served his internship and residency at Homer Phillips Hospital, St Louis, Mo. Dr Dale practiced in Milwaukee for 37 years until his retirement. He was a member of The Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Marcella; a daughter, Susan Dale; five stepdaughters, Tajuana Crosby, of Birmingham; Valerie Wesley and Jada Walton, both of Miami; Toni Byrd, of Norfolk, Va; Vernessa Cockrell, of Los Angeles; three sons, Dr Richard Dale, of Birmingham; William, of Memphis; Stephen, of Milwaukee; and a stepson, Darryl D. Walton, of Louisville.

Tributes to loved ones can help others

The memorial program of the Charitable, Educational and Scientific Foundation of the SMS offers physicians a unique opportunity to provide a living memorial to a loved one or friend through a gift to the foundation. A memorial contribution can provide financial aid to a needy medical student, help stimulate research on behalf of public health or aid in the preservation of Wisconsin's medical history. When a memorial gift is made to the foundation, the deceased person's family receives a special card with the name of the donor. For more information, contact the foundation staff at the SMS.

Nursing shortage

More than 11% of nursing jobs are unfilled, and the shortage will get worse without government help, a panel has warned the Department of Health and Human Services. To remedy the problem, the secretary's Commission on Nursing urged a one-time increase in Medicare reimbursement rates for hospitals that would be earmarked for nurses' salaries, and it urged more federal aid for nursing students. Meanwhile, a recent statewide survey by Ernst & Whinney found that the shortage of registered nurses in Wisconsin eased somewhat during the first quarter of 1988, but that methods used by hospitals to cope with vacancies have fostered concern about the quality of care.

CES Foundation
of the State Medical Society of Wisconsin

The persons and organizations named below made contributions to the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin during the month of January, 1989. The Foundation and the Society salute their generosity.

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Lewis G. Anthony, MD
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Gregory J. Bachhuber, MD
Hugo M. Bachhuber, MD
Walter Baranowski, MD
Arthur G. Barbier, MD
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AMA Awards

The Wisconsin physicians listed below recently earned AMA Physician's Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

January 1989

Baum, Kenneth Jeffrey, Madison
*Beier, James J., Marshfield
*Bemmann, Kathryn M., Waukesha
*Billings, Kenneth J., Marshfield
*Bolt, Richard H., Waukesha
*Christenson, Brian C., Fond du Lac
*Cohen, Steven H., Milwaukee
*Connors, Dean M., Madison
Corbett, Colleen M., Green Bay
*Desch, Charles A., Waukesha
*Dlesk, Andrea, Marshfield
*Dodson, Vernon N., Madison
Doty, John W., Ashland
*Ferrer, Modesto M., Hayward
*Flickinger, Roger R., Waukesha
*Freedman, Mark I., Milwaukee
*Funcke, William E., Beaver Dam
*Garcia, Arthur F., Thiensville
*Gray, John D., Green Bay
Green, Joseph M., Madison
*Harned, Gerald L., Waukesha
Harsch, Harold H., New Berlin
*Hart, Clarence R., Lake Geneva
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Kisken, William A., La Crosse
*Kritter, Alfred E., Waukesha
*Kwasny, Gregory P., Milwaukee
*Lang, Gordon E., Milwaukee
*Lochen, Gregory R., Waukesha
*Malinowski, Rodney W., Racine
*Mc Avoy, Paul B., Neenah
*Merkow, Steven J., Waukesha
*Pavlic, Robert S., Brookfield
*Pozniak, Myron A., Madison
*Rietbrock, Michael J., Oconomowoc
*Shaffer, Katherine A., Wauwatosa
*Sheflin, John R., Marshfield
*Stankevych, Anatol J., Green Bay
*Stene, Rebecca A., Marshfield
*Travelli, Renato, La Crosse
*Viernes, Patricia F., Brookfield
*Vincent, Dennis G., Wauwatosa
Wegehaupt, Paul K., Rhinelander
*Wilson, J Frank, Milwaukee
*Wisnefske, David D., Monroe

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State Medical Society of Wisconsin
Thomas Tormey, Jr, MD

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Robert Sellers, MD
Kenneth Viste, MD
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A call for photographs

The *Wisconsin Medical Journal* and the SMS Charitable, Educational, and Scientific Foundation are joining forces in an effort to build a photographic library of medicine in Wisconsin. Donations of current or historical photos relating to medicine—persons or places, equipment or events—are welcome and tax deductible. All donated photos will become the property of the Fort Crawford Medical Museum, which is owned and operated by the foundation, and may be used to illustrate future issues of the *Wisconsin Medical Journal.* Send your photos to: Thomas L. Adams, State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701-1109.

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Membership update

The following information is being provided from membership reports and from individual members for updating the 1988 Membership Directory as published in the August 1988 issue of the *Wisconsin Medical Journal*. Because of space limitations, address changes and phone numbers will not be included in this update, although they will be changed in the SMS membership records.

County transfers will be included when processing has been completed by the membership records staff.

Changes in practice specialties (as used by the AMA) and changes in board-certified specialties as listed by the American Board of Specialties (see August 1988 Membership Directory) are included. Practice specialties appear before the slash (/) and board-certified specialties appear after the slash.

Bardole, MD, Judy L.
1000 North Oak Ave
Marshfield, WI 54449
GS

Bieter, MD, Thomas G.
310 Chestnut St
Eau Claire, 54701
P/P

Blaschke, MD, U Michael
330 W Silver Spring Drive
Milwaukee, WI 53217

Breger, MD, Robert K.
534 W Labelle Ave
Oconomowoc, WI 53066
AN

Breger, MD, Robert K.
534 W Labelle Ave
Oconomowoc, WI 53066

Clark, MD, Jimmy R.
S57 W22305 Stonehedge
Waukesha, WI 53186
PTH

Conterato, MD, James P.
1000 North Oak Ave
Marshfield, WI 54449
AN IM/IM

Crabtree, Deborah L.
1023 Mildred Ave
Edgerton, WI 53534

Crouch, MD, John D.
2901 W Kinnickinnic
Milwaukee, WI 53215
TS CDS/S

Darr, MD, David L.
411 Lincoln St
Neenah, WI 54956
OBG/OBG

Dillon, MD, Ade R.
1000 North Oak Ave
Marshfield, WI 54449
PM

Ganick, MD, Dorothy J.
255 Bryan St
Green Bay, WI 54301
PD HEM/PD

Gold, MD, Jay A.
8701 Watertown Plank Road
Milwaukee, WI 53202
GPM

Hall, DO, David D.
2712 Stein Blvd
Eau Claire, WI 54702
P

Hofer, MD, Lee A.
3603 Nimitz
Eau Claire, WI 54701
OPH

Kim, MD, Sang You
948 Golf View Drive
Fond du Lac, WI 54935
AN

Kim, Timothy R.
201A South 62nd St
Milwaukee, WI 53214

King, MD, Thomas R.
1501 North Broadway
Marshfield, WI 54449
CDS/IM

Komisar, MD, Jeffrey M.
4732 N Cumberland Blvd
Milwaukee, WI 53211
PTH/PTH

Krieger, MD, Wescot G.
1104 Winesap Court
Mequon, WI 53092
EM

Lavin, MD, Maureen P.
6625 W Bluemound Road, #6
Milwaukee, WI 53213
PD

Layde, MD, Peter M.
510 North St Joseph
Marshfield, WI 54449
GPM/GPM

Mamerow, MD, Steven J.
10243 W National Ave
West Allis, WI 53227
IM/IM

Mc Neely, MD, James K.
14980 Juneau Blvd
Elm Grove, WI 53122
AN

Narian, MD, Shakti
1745 Dousman St
Green Bay, WI 54303
IM/IM

Pallin, MD, Jane C.
6530 Sheridan Road
Kenosha, WI 53140
R/R

Pallin, MD, John S.
6530 Sheridan Road
Kenosha, WI 53140
R/R

Pappenheim, MD, John E.
5070 North Shoreland
Whitefish Bay, WI 53217
P

Park Sunmin
2162 S 102nd St, #7
West Allis, WI 53227

Rothfusz, MD, Ronald R.
1000 North Oak Ave
Marshfield, WI 54449
IM EM

Rucker, MD, Rebecca M.
900 West Clairemont
Eau Claire, WI 54701
IM/IM

Savaro, MD, Suhail
1153 West State St
Marshfield, WI 54449
IM CDS/IM

Sausker, MD, William F.
733 W Clairemont Ave
Eau Claire, WI 54701
D/D

Continued on page 56

OVER A CENTURY AGO,

a thousand visionary physicians across the nation bestowed a commemorative stone carving to the Washington Monument. This patriotic display symbolized their unrelenting devotion to a new republic founded on freedoms—including the freedom to practice medicine for the best possible health of all its people. *Today your help is needed to restore this symbol of our profession.*

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Coming in the May/June issue:

- Why one nursing home and not another?
- Helping patients with hearing problems
- How hard should we try to get older patients to stop smoking?
- Caring for diabetic foot ulcers

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Continued from page 54

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1000 North Oak Ave
Marshfield, WI 54449
ORS/ORS

Schulz, MD, Gregory L.
1745 Dousman St
Green Bay, WI 54303
IM

Schuster, MD, Debra Kay
101 North Adams
Marshfield, WI 54449

Shaboon, May
5637 W Valley
Forge Drive, #4
Wauwatosa, WI 53213

Sontag, Mark
727 Kenney Ave
Eau Claire, WI 54701
AN

Teuber, MD, Larry L.
5640 West Auer Ave
Milwaukee WI 53216
NS

Tomasi, MD, Mark R.
3645 Sharon Drive
Eau Claire, WI 54701
EM FP/FP

Tombuloglue, MD, Lutfi
2745 W Layton Ave
Milwaukee, WI 53221
PD EM

Viega, MD, Richard S.
3153 South 29th St
Milwaukee, WI 53215
PTH

Weiss, MD, Steven D.
733 W Clairemont Ave
Eau Claire, WI 54702
IM

County transfers

(From Milwaukee to Brown)
Asma, MD, Stephen M.
301 N Broadway
De Pere, WI 54115

(From Dane to Wood)
Bohlmann, MD, Brian J.
1809 Sawyer Drive
Marshfield, WI 54449

(From Dane to Winnebago)
Connelly, MD, Patrick W.
420 S Koeller, #212
Oshkosh, WI 54901

(From Waukesha to Milwaukee)
Darnieder, MD, Michael V.
8535 W Capitol Drive
Milwaukee, WI 53222

(From Lincoln to Trempealeau-Jackson-Buffalo)
Kloster, MD, Geoffrey C.
219 S Main St
Galesville, WI 54630

(From Milwaukee to Green)
Liu, MD, Lily H.
188 Cedar St
Brodhead, WI 53520

Warffuel, MD, Morgan E.
188 Cedar St
Brodhead, WI 53520

(From Grant to Rusk)
Nimmo, MD, Eric A.
1300 Jez Road
Ladysmith, WI 54848

Physicians Exchange

Medical director, Student Health Clinic, South Dakota State University, August 1989. South Dakota State University is seeking a family practice physician or internist with interest/training in young adult health care. Responsibilities include providing outpatient care for university students each day classes are in session and leadership for the Student Health Clinic medical and nursing staff. Will be expected to promote health education and wellness to patients and staff. Must share rotation of 5 pm–10 pm week night call with two other primary care staff. Weekends and holidays are free. Director will represent student health in the local medical community and serve on the Health Service Council. Applicant must be eligible for South Dakota licensure and must provide evidence of successful experience with a young adult clientele. Documented evidence is also required indicating experience in maintaining positive rapport with professional peers and usual clinic office personnel. It is desirable that candidate have prior student health experience, familiarity with eating disorders, human sexuality concerns, and chemical dependency issues. Contract length is negotiable for 9–10.5 month full-time appointment renewable yearly contingent on satisfactory performance. Salary will be commensurate with qualifications. Sick leave, health insurance, malpractice insurance, and fringe benefits are provided. Send resume, letter of application, and three current reference names, addresses, and telephone numbers to Don Smith, Director of Student Health and Counseling, 202 West Hall, South Dakota State University, Brookings, South Dakota 57007; ph 605/688-4157. Closing date is April 25, 1989 or until position is filled. "South Dakota State University is an Affirmative Action/Equal Opportunity Employer (Female/Male)." Minorities and women are encouraged to apply. Proof of eligibility for employment is required by the Immigration Reform and Control Act of 1986. 4/89

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DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg,* copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Psychiatrist-chemical dependency psychiatrist interested in chemical dependency needed to join 220-physician multi-specialty group with adjacent 447-bed hospital. Position includes inpatient services for chemical dependency unit with full range of outpatient chemical dependency services available. Behavioral medical department is presently staffed by seven psychiatrists, one child/adolescent psychiatrist and two psychologists. New clinic building recently completed. Gundersen Clinic, Ltd, is located in La Crosse, Wisconsin, a progressive community of 50,000 built along the shores of the Mississippi River amid scenic bluffs, the city offers excellent recreational facilities. Numerous educational and cultural opportunities are provided by an expanding university with undergraduate and graduate degree programs, and a private liberal arts college. Excellent pension program, no investment required. Service organization. Write: Philip J. Dahlberg, MD, Chairman, Personnel Committee, Gundersen Clinic, Ltd, 1836 South Ave, La Crosse, WI 54601. An Equal Opportunity Employer. 4/89

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multi-specialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Stuart R. Lancer, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. c4;p5–7;8–10/89

Chief, rehabilitation medicine service. Board-certified/eligible physiatrist; unrestricted license in any state or District of Columbia; US citizen or permanent resident immigrant; English language proficiency required. 775-bed medical center that offers primary, extended care, and outpatient medical and psychiatry services. Salary to $94,000, depending on qualifications; Federal malpractice protection; 30 days paid vacation; relocation expenses. Tomah is a city of 7,500 in a predominantly rural area that offers affordable real estate, good schools. Conveniently located on I-90/94 midway between Milwaukee and Minneapolis. Call or write: R. S. Merrill, MD, Chief of Staff (11), VA Medical Center, Tomah, WI 54660; 608/372-1778. EO/AAE. 4–5/89

West Bend, Wisconsin. Seeking full-time and part-time emergency department physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation, malpractice insurance provided, and benefit package provided. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p4/89

Chief, radiology service. Board-certified/eligible radiologist unrestricted license in any state or District of Columbia; US citizen or permanent resident immigrant; English language proficiency required. 775-bed medical center that offers primary, extended care, and outpatient medical and psychiatry services. Salary to $94,000, depending on qualifications; Federal malpractice protection; 30 days paid vacation; relocation expenses. Tomah is a city of 7,500 in a predominantly rural area that offers affordable real estate, good schools. Conveniently located on I-90/94 midway between Milwaukee and Minneapolis. Call or write: R. S. Merrill, MD, Chief or Staff (11), VA Medical Center, Tomah, WI 54660; 608/372-1778. EO/AAE. 4–5/89

Full-time position available—July. Moderate volume OP/ED community hospital. Current ACLS/ARLS certification required. Competitive reimbursement package. One-half hour from Green Bay, near lakes/recreational area. Send CV to: Shirley Yatso, PO Box 129, Oconto Falls, WI 54154; ph 414/846-3444. p4/89

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-physician expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact E.T. Ayala, MD, Department of Internal Medicine, Sharpe Clinic, SC, 92 East Division St, Fond du Lac, WI 54935; ph 414-922-0560, collect. cp3–8/89

Wisconsin. Immediate opportunities available for primary care trained physicians in several hospital-based clinics and busy emergency departments. Southern and central Wisconsin locations. Competitive compensation, paid malpractice insurance, flexible scheduling. Benefit package available to full-time physicians. For further information contact: Emergency Consultants, Inc, 2240 South Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p4/89

General internist (BC/BE, with or without subspecialty interest) to join a busy three-internist group in Oshkosh, Wisconsin. Excellent educational and recreational facilities available for the entire family. Very attractive first year guarantee with production incentive, as well as a benefit program. Partnership offer after one year. Contact Dept 624 in care of the *Journal*. 4–5/89

Physicians Exchange

continued

General surgeon (BC/BE) to join general surgeon and seven family practitioners. East Central Wisconsin, 100,000 service area, excellent 220-bed hospital. Vascular experience desirable. Competitive first year salary with incentive. Stockholder status available after one year. Contact: Robert Templin, Administrator, Associated Physicians of Fond du Lac, Ltd, 505 E. Division St, Fond du Lac, WI 54935. p4-6/89

Orthopedic surgeon, anesthesiologist. A progressive 131-bed, two hospital system is seeking board-certified or board-eligible physicians to establish practices in the Iron Mountain area of Michigan's beautiful Upper Peninsula. Located 100 miles directly north of Green Bay, Wisconsin. Dickinson County Hospitals have a medical staff of 45 full-time physicians and a total service area population of over 40,000. For more information contact: John Schon, President, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; ph 906-779-4502. 4-5/89

General surgeon (BC or BE) to associate with a busy surgeon in general, vascular, and endoscopic practice serving two hospitals. Competitive salary and fringe benefits with early partnership. Send CV to Badri N. Gaju MD, FACS, 451 E. Brooklyn, Chilton, WI 53014. p4-6/89

Family practice (BC/BE) Northwest Missouri community offering the best of both worlds—lucrative practice and carefree country living. Modern clinic owned and managed by hospital. Guaranteed salary, plus benefits, paid insurance, CME allowance and all moving expenses. Back-up coverage. Scenic area provides abundant recreational activities and easy access to metropolitan Kansas City, Mo. Send CV to Carolyn Messner, Director Physician Services, College & Clarks Sts, Albany, MO 64402 or call 816-726-3941 collect. p4-6/89

Ophthalmologist. The Ashland Eye Clinic, SC, a busy, well-established medical-surgical practice in Ashland, Wisconsin, is seeking a general ophthalmologist. Competitive salary, bonus and excellent benefits. Partnership in one year if mutually compatible. Please send resume to Dr Ken Morrow, PO Box 233, Ashland, WI 54806, or telephone him or Dr John Doty during the day at 715-682-4515, or evenings after 7 pm at 715-682-8146 (Dr Morrow) or 715-682-9298 (Dr Doty). 4-6/89

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-physician expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact E.T. Ayala, MD, Department of Internal Medicine, Sharpe Clinic, SC, 92 East Division St, Fond du Lac, WI 54935; ph 414-922-0560, collect. cp3-8/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

Internist (BC/BE) to join three board-certified internists in a 12-member multi-specialty group in a central Wisconsin community of 30,000 located on the Wisconsin River. Competitive salary and fringe benefits. Send CV to Administrator, Doctors' Clinic, SC, 1041 Hill St, Wisconsin Rapids, WI 54494; ph 715/423-0122. p4-6/89

Family practitioner (BC/BE) wanted to join 12-physician multi-specialty group in central Wisconsin community of 30,000 located on the Wisconsin River. Competitive salary and fringe benefits. Send CV to Administrator, Doctors' Clinic, SC, 1041 Hill St, Wisconsin Rapids, WI 54494; ph 715/423-0122. p4-6/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Gastroenterologist-internist to take over successful established practice in Fond du Lac, July 1989. Will be the only gastroenterologist within a 20-mile radius, equivalence of approximately 100,000 population. Contact E. B. Horn, MD, 481 E Division St, Fond du Lac, WI 54935; ph 414-923-5555. p3-6/89

Family practice opportunities in a group setting. Located in a family oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, President & CEO, Clintonville Community Hospital, 35 North Anne St, Clintonville, WI 54929; ph 715-823-3121. p12/88;1-5/89

Family practice-internal medicine. Attractive opportunities for board-certified/board-eligible family practice and internal medicine physicians in Wisconsin and Michigan. Contact Bob Strzelczyk to discuss these positions and your practice requirements. Strelcheck & Associates, Inc., 12724 N Maplecrest Lane, Mequon, WI 53092; ph 414-243-9500 (collect). Outside Wisconsin 800-243-4353. 3-4/89

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Northern Wisconsin
Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Eagle River—Great opportunity for two BC/BE family practice physicians to join well-established practice. Guaranteed annual income and future partnership available. For more information, send resume to Judy Harris, Recruiter, UW Office of Rural Health, 810 University Bay Dr, Madison, WI 53705 or call collect 608/263-7933. 1tfn/88

NEW PHYSICIANS FOR WISCONSIN
is seeking
- Family Physicians
- Pediatricians
- Orthopedic Surgeons
- Internists

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7-12/88;1-6/89

Physicians Exchange

continued

Career opportunity for qualified Emergency Room physician. Our group covers two hospital emergency rooms and an active walk-in clinic in southeastern Wisconsin. Full fringe benefit package and flexible scheduling offered. Interested parties contact John W. Linstroth, MD, 1201 Sherwood Lane, Caledonia, WI 53108; ph 414-835-7761. 8tfn/88

HMO Medical director. U-Care, the HMO sponsored by the University of Wisconsin Hospital and Clinics and physician faculty, is recruiting for a medical director. U-Care is a closed panel HMO with more than 15,000 members. The successful candidate should have an established record as a medical administrator, be board certified, and have at least ten years of practice or administrative experience. Physicians of any medical specialty are encouraged to apply, but a primary care background would be of special interest.

There will be an opportunity for limited medical practice, and an appointment to the medical school faculty will accompany the position. The salary will be commensurate with experience and includes a generous fringe benefit package. Interested candidates should contact Dr Richard Friedman, University of Wisconsin, 600 Highland Ave, H4/416 CSC, Madison, WI 53792.

Emergency medicine-Dubuque. Opening available for qualified individual to join incorporated group of three BE/BC emergency physicians. Unique and enjoyable practice, excellent compensation, complete career opportunities, and highly livable community. Write NET, PC, c/o Mercy Health Center, Emergency Department, Dubuque, IA 52001, or call Mark Singsank, MD; ph 319-589-9666. p3–5/89

Baraboo, Wisconsin. Emergency Department at St Clare Hospital seeks full- and part-time physicians. 8,000 annual visits. Hourly compensation. Pleasant area in which to live, near Devil's Lake and the Baraboo Hills. Also, Madison nearby. Contact: Ronald Levy, President, 707 14th St, Baraboo, WI 53913, or call 608-356-5561. 3–5/89

Northern Wisconsin

Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Excellent opportunity for BC/BE obstetrician-gynecologist in beautiful central Wisconsin. Excellent professional environment and growth potential. Competitive salary and fringe benefits. Send CV and inquiries to: Plaza Gynecology & Obstetrics, SC, 122 North Wilshire Drive, Stevens Point, WI 54481. 2–4/89

BC/BE Internist needed to join busy 13-doctor multi-specialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send curriculum vitae to inquiries to: Lake Region Clinic, PC, PO Box 1100, Devils Lake, ND 58301, Attn: Joel Rotvold or call collect at 701-662-2157 for further information. 3–5/89

Family general practice in Pierz, Minnesota. Excellent opportunity for practitioner desiring independent practice with shared-call coverage of one in eight. Hospital owned satellite with excellent facilities and income guarantee in the heart of Minnesota lake country. Send CV to Tim Pollard, VP, St Joseph's Medical Center, 523 North 3rd St, Brainerd, MN 56401. p3–4/89

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700. 12tfn/88

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

BC/BE Family practitioner needed to join busy 13-doctor multi-specialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send curriculum vitae or inquiries to: Lake Region Clinic, PC, PO Box 1100, Devils Lake, ND 58301, Attn: Joel Rotvold or call collect at 701-662-2157 for further information. 3–5/89

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-physician expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact E. T. Ayala, MD, Department of Internal Medicine, Sharpe Clinic, SC, 902 East Division St, Fond du Lac, WI 54935; ph 414-922-0560, collect. p3–8/89

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

Needed. Second permanent part-time internist to practice high quality medicine in a fully equipped satellite clinic in the beautiful lakes area of southeastern Wisconsin. No hospital, weekend or on-call duties. Contact: Ernest C. Deeds, MD, Delavan Riverview Clinic, 540 Bowers Blvd, Delavan, WI 53115. p3–4/89

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Miscellaneous

For rent. Doctor's office suite, Cudahy, Wisconsin, in a four-suite professional building with parking. The other three suites are occupied by a general surgeon, internist, and OB/GYN specialist. For information call 414-481-6558. p3–4/89

Unsecured signature loans for physicians, $5,000 to $60,000. Use for any purpose including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments. Up to six years to repay. No prepayment penalties. Call 1-800-331-4952, Medi-Versal, Department 356. 4/89

Medical Meetings—Continuing Medical Education

April 29, 1989: Eighth Annual OB/GYN Update, presented by St Francis Hospital, Milwaukee. Fee: $45. Info: Call St Francis Hospital, Education, Attn: Paulette Anclair, 414/647-5009. 4/89

May 19–21, 1989: "Taking Time in '89," hosted by the Dodge Chapter of Wisconsin Society of Medical Assistants, at Howard Johnson's Motel, East Washington Ave, Madison. Six CEUs applied for. Info: Sylvia Neuman, CMA, Registration Chairman, 400 North St, Beaver Dam, WI 53916 or call 414/885-6077 after 5:30 pm or Marjorie Spiel, Financial Chairman, 708 E. Mill, Beaver Dam, WI 53916 at 414/887-0379 or after 5:30 pm, 414/885-4385. Deadline for registration May 5, 1989. g4/89

June 16–18, 1989: Wisconsin Radiological Society, Pioneer Inn, Oshkosh. g2–5/89

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

FOR LISTING of other meetings see the July 1, 1988, issue of the *Journal of the American Medical Association.* Continuing Education Opportunities for Physicians for period August 1988 through December 1988.

JUNE 21–24, 1989: Wisconsin Academy of Family Physicians, Radisson Hotel, La Crosse g11tfn/88

July 20–22, 1989: Wisconsin Society of Obstetrics & Gynecology 1989 Annual Meeting, at Radisson Hotel, La Crosse. Info: WSOG, 850 Elm Grove Rd, Elm Grove, WI 53122. g1–7/89

July 27–29, 1989: Critical Care Update '89, sponsored by Berlin Hospital Association, at Heidel House Conference Center, Green Lake. Info: Berlin Hospital Association, Medical Conference 225 Memorial Dr, Berlin, WI 54923; ph 414/361-1313, ext 264. g4–7/89

1989 CME Cruise-Conferences on medicolegal issues and risk management. Caribbean, Mexico, Alaska/Canada, China/Orient, Scandinavia/Russia, Mediterranean, Black Sea, Trans Panama Canal. Approved for 24–28 CME Category 1 Credits (AMA/PRA) and AAFP prescribed credits. Excellent group rates on finest ships. Prescheduled in compliance with IRS requirements. Information: International Conferences, 189 Lodge Ave, Huntington Station, NY 11746; ph 800-521-0076 or 516-549-0869. p2–4/89

Berlin Hospital Association

Conference: Critical Care Update '89

Thursday–Saturday, July 27–29, 1989
Heidel House Conference Center
Green Lake, WI

Held at the beautiful Heidel House Resort on Green Lake, the conference is scheduled to coincide with the Experimental Aircraft Association (EAA) Convention in Oshkosh, located just 25 miles away. Transportation to the famous EAA Convention is available from the Heidel House.

The Heidel House resort boasts three championship golf courses (just minutes away), charter fishing, water sports, biking, nature trails, tennis, and unique shopping.

Reservations can be made by contacting:

Berlin Hospital Association
Medical Conference
225 Memorial Drive
Berlin, WI 54923
(414) 361-1313, ext. 264

SEPTEMBER 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. 12tfn/88

SEPTEMBER 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay, Wisconsin. g11tfn/88

October 13–15, 1989: Wisconsin Radiological Society Annual Meeting, Concourse Hotel, Madison. g2tfn/89

AMA

JUNE 18–22, 1989: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 3–6, 1989: Interim House of Delegates, Honolulu, HI.

JUNE 24–28, 1990: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 2–5, 1990: Interim House of Delegates, Orlando, FL.■

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Armstrong Aviation 4
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Marion Labs .....9 & 10
Cardizem®
Marion Labs .....26 & 27
Carafate®
Medical College of Wisconsin 37
Physician Resource Network
Medical Protective Company 41
Merck Sharp & Dohme .....IBC & BC
Vasotec®
Palisades Pharmaceuticals 26
Yocon®
PBBS Equipment Corp 46
Physicians Insurance Company of Wisconsin 35
Roche Laboratories .....5 & 6
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S & L Signal Company 51
SMS Services 31
St Luke's Medical Center 42
StrategiCare 12

VASOTEC®

(ENALAPRIL MALEATE | MSD)

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia. Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients.

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies in pregnant women. VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

Hypertension: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

Heart Failure: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest, pulmonary embolism and infarction, rhythm disturbances, atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION), prostate hypertrophy.

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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V. 88, No. 5

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May 1989 Vol. 88 No. 5

Contents

Opinions

3 *President's page:* Medical manpower
by William L. Treacy, MD, Milwaukee

6 *Editorials:*
Something stronger than No-Doz
by Jeffrey H. Lamont, MD, Wausau

Tithing
by John P. Mullooly, MD, Milwaukee

Scientific

11 *Special:* New laws about sexual misconduct by therapists: knowledge and attitudes among Wisconsin psychiatrists
by Kathryn C. Bemmann, MD, and Jean Goodwin, MD, Waukesha and Milwaukee

17 Community radon awareness and detection: a model program
by Melvin S. Blumenthal, MD, and Larry R. Boller, BS, Monroe

22 Diagnosis of renal osteodystrophy with the Jamshidi needle biopsy
by Philip J. Dahlberg, MD, La Crosse

25 Computerized tomography in metastatic evaluation
by Roy E. Smith, MD, Dale Berg, MD, and Richard M. Hensen, MD, Milwaukee

28 Instructions for authors

Socioeconomic

31 Medicare and the so-called excess charges

32 *Public health:* Progress in the early detection of breast cancer in Wisconsin
by Patrick L. Remington, MD, Madison

36 *Loss prevention:* Case report: brachial plexus injury with shoulder dystocia
by Herbert F. Sandmire, MD, Green Bay

38 *Special:* The use of the laboratory: dollars and sense
by Edwin L. Overholt, MD, La Crosse

Organizational

45 WMJ reader survey results

46 SMS opposes proposal to lower drinking age

48 SMS fights mandatory assingment bill

50 Obituaries

Our cover: "Condemned Man," a detail from "The Last Judgment" in the Sistine Chapel, by Michaelangelo Buonarroti, 1560. Courtesy of the Madison Public Library.

Wisconsin Medical Journal

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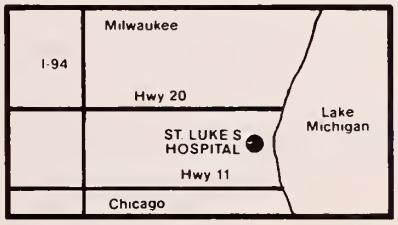

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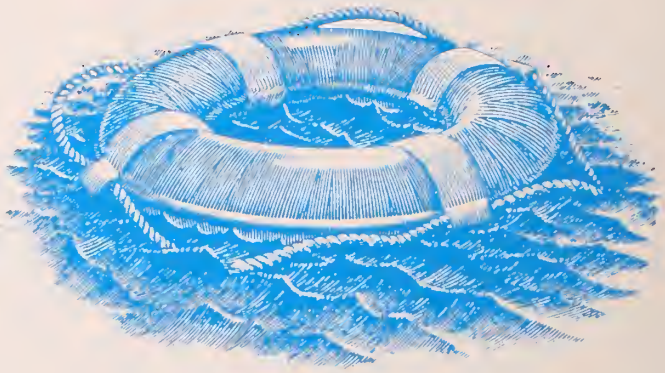

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President's page

Medical manpower

FOR AS LONG AS I CAN remember, the best and the brightest of our young people have strongly tended toward the health care sciences—especially toward an MD degree. Our country has been well served by this. The reduction in mortality rate of patients suffering myocardial infarctions from 30% to 4.7%; the earlier detection of breast cancer, and enhanced survival rates for its victims; the much-improved infectious disease therapy—these and many other benefits our communities receive probably just would not have happened without the endeavors of many of our country's best minds.

Unfortunately, there has been a strong deviation from this trend in recent years. The attractiveness and better pay of fields such as corporate mergers and financial engineering have drawn very many of our brightest young people away from medicine. I am sure that the length of training and huge debts that seem inevitable to people looking at medicine as a career have also been factors.

CT and MRI scaning, coronary angiography and angioplasty, and interarterial clot dissolution are not the products of ordinary and average minds. If this trend continues, medicine will have a difficult time continuing the rapid technological advances we are all well aware of, and have come to expect.

Because of the potentially severe effects of this trend on not only the future of our profession, but also—and more importantly—on the caliber of care we give to our patients, the SMS has formed a task force on health care manpower to study in depth the trend's severity, significance, and implications and make recommendations on these findings.

Some of the data the task force will be reviewing at its first meeting will be:

- Since 1974, medical school applications have fallen significantly, with the sharpest decline occurring in the past four years.
- According to reports, the Medical College of Wisconsin, along with the University of Minnesota, Northwestern University and many other excellent schools, could not find enough qualified applicants to fill the freshman class of 1988.
- Practicing physicians, frustrated over soaring malpractice costs, governmental interference in the practice of medicine, HMO proliferation, etc, have been discouraging bright, talented young people from entering medicine.

There is a strong trend for newly trained physicians to go into some of the higher paying specialties, rather than the primary care specialties of family practice, general practice, internal medicine, and pediatrics—presumably because of the high indebtedness they have.

William L. Treacy, MD

- The University of Illinois, our nation's largest medical school, has reportedly cut the size of its entering class because of, among other reasons, the decrease in the available talent pool.
- To put it all in perspective, between 1987 and 1988, there was a 40% rise in law school applicants, according to the National Law School Admission Council.

The deliberations of the task force will be very interesting and informative, but—and more importantly—they may profoundly influence the sophistication of care that our communities will be able to receive in the future.

Editorials

Something stronger than No-Doz

YOU ALL KNOW THE FEELING. Just when you are starting to think that nothing in your practice could surprise you anymore, something comes along that does. Last week, for example, a teenager came in for a physical exam, and as we were finishing up, asked me if I could prescribe for him "something stronger than No-Doz." He claimed that No-Doz no longer worked for him. I asked him how often he needed the No-Doz and he replied, "Every day." He went on to explain that he attended school each day, after which he had a job that occupied him from 4 pm to 10 pm, after which he did three to four hours of homework. He claimed that the No-Doz allowed him to function on the four hours of sleep he allotted himself each night.

If this story doesn't chill you to the bone, it should. For one thing, it points up just how unquestioningly the habitual use of self-prescribed drugs is accepted in our society nowadays. For another, it highlights a frightening aspect of the demographics of drug use among adolescents and young adults today. Until fairly recently, self-prescription of illicit drugs was a feature of the counter culture. In contrast, drug abuse today is characteristic of those who most fervently embrace modern society's most cherished values—"getting the edge" and "having it all." Drug abuse is justified today either as a means of enhancing one's performance and competitive edge, or as an outward and visible sign of one's having achieved a certain pinnacle of success. We are, therefore, not talking anymore about disease involving one branch of the tree, but rather involving the trunk itself, and perhaps the roots as well.

To get back to my patient, I shared my concerns about his No-Doz usage with him, and later with his parents. They were aware of his occasional use of No-Doz, but had not realized it had become a regular habit. They were quite upset over the situation, citing over and over again what a "hard worker" and "good boy" their son had always been. It made me wonder which parents suffer more—the parents who discover their child is abusing drugs as a sign of rejection of parental values of hard work, achievement, and material well being, or the parents who find their child abusing drugs in a single-minded pursuit of these very same goals.

A pediatrician's training in adolescent medicine places a great deal of emphasis on developing one's interviewing skills. When one has been trained to expect to have to delicately pry a history of drug abuse out of a frightened, reluctant teenager, it comes as a surprise to have a drug problem politely and openly introduce itself in the confines of one's examining room. The openness and candor of the entire encounter underscore the scope and pervasiveness of habitual drug misuse among children in our society today. If any of you are unaware of drug abuse among the children in your practices, it may very well be that this plague has left each and every one of your patients untouched.

I wouldn't bet the farm on it, though.

—Jeffrey H. Lamont, MD
Wausau

Tithing

IN HIS INAUGURAL ADDRESS as president of the AMA, Dr James Davis encouraged physicians to tithe their time for the benefit of the community.

This theme was echoed by the president of National Federation of Catholic Physician's Guilds at their annual meeting in October 1988 when he called on the physicians to tithe their time for the care of the poor.

In recent meetings at the Milwaukee County Medical Society, this theme was discussed and met an enthusiastic reception. With myriad problems of child abuse, care of the homeless, poor nutrition, health care needs of runaways, the skyrocketing rate of teenage pregnancy and unmet health care of the poor, it is evident that a donation of time by the physician is needed.

With the advent of Medicare and Medicaid in the '60s, where the federal and state governments took on the burden of providing health care, we have seen a diminution of the physician's donation of his time to the poor. The government would provide care for all. While it was a help to a degree, recent studies have proved how illusory this concept has become. Many of us remember how physicians donated a good portion of their time toward helping the poor at the various county hospitals or in their private offices. With the establishment of charity hospitals in the major cities in

Continued on page 8

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Continued from page 6
this country in the 19th century, physicians donated much of their time staffing these hospitals. Boston's experience is well-documented and similar stories were repeated in New York, Philadelphia, Baltimore, and later in Milwaukee, Chicago, etc.

It is time for us all to increase our time given to the needy. The rewards that will return to us will not be monetary. The rewards of true altruistic giving are of much deeper significance. Doctors will feel much better about themselves and will answer the deeper needs of their nature.

Most of us have had enough of the current fare of medico-socioeconomics. To simply give is the best therapy to improve one's spirit.

Our county medical society can help implement these desires of physicians by identifying organizations, groups and areas where help is needed on a volunteer basis. By tithing one's time to the community, we help build up the community and hopefully achieve the unity that we need in this fragmented society.

—John P. Mullooly, MD
Milwaukee

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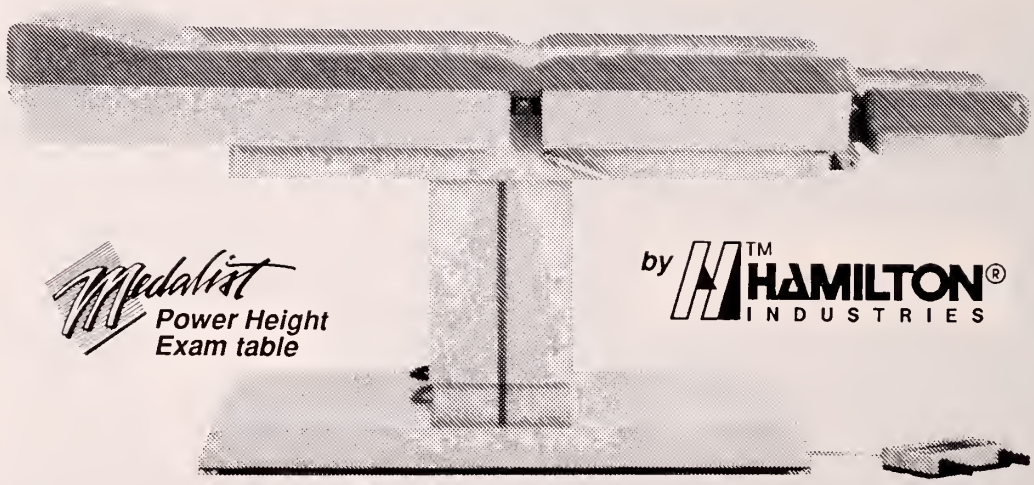

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1. **Cardiac Conduction.** CARDIZEM prolongs AV node refractory periods without significantly prolonging sinus node recovery time, except in patients with sick sinus syndrome. This effect may rarely result in abnormally slow heart rates (particularly in patients with sick sinus syndrome) or second- or third-degree AV block (nine of 2,111 patients or 0.43%). Concomitant use of diltiazem with beta-blockers or digitalis may result in additive effects on cardiac conduction. A patient with Prinzmetal's angina developed periods of asystole (2 to 5 seconds) after a single dose of 60 mg of diltiazem.
2. **Congestive Heart Failure.** Although diltiazem has a negative inotropic effect in isolated animal tissue preparations, hemodynamic studies in humans with normal ventricular function have not shown a reduction in cardiac index nor consistent negative effects on contractility (dp/dt). An acute study of oral diltiazem in patients with impaired ventricular function (ejection fraction 24% ± 6%) showed improvement in indices of ventricular function without significant decrease in contractile function (dp/dt). Experience with the use of CARDIZEM (diltiazem hydrochloride) in combination with beta-blockers in patients with impaired ventricular function is limited. Caution should be exercised when using this combination.
3. **Hypotension.** Decreases in blood pressure associated with CARDIZEM therapy may occasionally result in symptomatic hypotension.
4. **Acute Hepatic Injury.** Mild elevations of transaminases with and without concomitant elevation in alkaline phosphatase and bilirubin have been observed in clinical studies. Such elevations were usually transient and frequently resolved even with continued diltiazem treatment. In rare instances, significant elevations in enzymes such as alkaline phosphatase, LDH, SGOT, SGPT, and other phenomena consistent with acute hepatic injury have been noted. These reactions tended to occur early after therapy initiation (1 to 8 weeks) and have been reversible upon discontinuation of drug therapy. The relationship to CARDIZEM is uncertain in some cases, but probable in some. (See PRECAUTIONS.)

PRECAUTIONS

General. CARDIZEM (diltiazem hydrochloride) is extensively metabolized by the liver and excreted by the kidneys and in bile. As with any drug given over prolonged periods, laboratory parameters should be monitored at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function. In subacute and chronic dog and rat studies designed to produce toxicity, high doses of diltiazem were associated with hepatic damage. In special subacute hepatic studies, oral doses of 125 mg/kg and higher in rats were associated with histological changes in the liver which were reversible when the drug was discontinued. In dogs, doses of 20 mg/kg were also associated with hepatic changes, however, these changes were reversible with continued dosing.

Dermatological events (see ADVERSE REACTIONS section) may be transient and may disappear despite continued use of CARDIZEM. However, skin eruptions progressing to erythema multiforme and/or exfoliative dermatitis have also been infrequently reported. Should a dermatologic reaction persist, the drug should be discontinued.

Drug Interaction. Due to the potential for additive effects, caution and careful titration are warranted in patients receiving CARDIZEM concomitantly with any agents known to affect cardiac contractility and/or conduction. (See WARNINGS.) Pharmacologic studies indicate that there may be additive effects in prolonging AV conduction when using beta-blockers or digitalis concomitantly with CARDIZEM. (See WARNINGS.)

As with all drugs, care should be exercised when treating patients with multiple medications. CARDIZEM undergoes biotransformation by cytochrome P-450 mixed function oxidase. Coadministration of CARDIZEM with other agents which follow the same route of biotransformation may result in the competitive inhibition of metabolism. Dosages of similarly metabolized drugs, particularly those of low therapeutic ratio or in patients with renal and/or hepatic impairment, may require adjustment when starting or stopping concomitantly administered CARDIZEM to maintain optimum therapeutic blood levels.

Beta-blockers: Controlled and uncontrolled domestic studies suggest that concomitant use of CARDIZEM and beta-blockers or digitalis is usually well tolerated, but available data are not sufficient to predict the effects of concomitant treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities.

Administration of CARDIZEM (diltiazem hydrochloride) concomitantly with propranolol in five normal volunteers resulted in increased propranolol levels in all subjects and bioavailability of propranolol was increased approximately 50%. If combination therapy is initiated or withdrawn in conjunction with propranolol, an adjustment in the propranolol dose may be warranted. (See WARNINGS.)

Cimetidine: A study in six healthy volunteers has shown a significant increase in peak diltiazem plasma levels (58%) and area-under-the-curve (53%) after a 1-week course of cimetidine at 1,200 mg per day and diltiazem 60 mg per day. Ranitidine produced smaller, nonsignificant increases. The effect may be mediated by cimetidine's known inhibition of hepatic cytochrome P-450, the enzyme system probably responsible for the first-pass metabolism of diltiazem. Patients currently receiving diltiazem therapy should be carefully monitored for a change in pharmacological effect when initiating and discontinuing therapy with cimetidine. An adjustment in the diltiazem dose may be warranted.

Digitalis: Administration of CARDIZEM with digoxin in 24 healthy male subjects increased plasma digoxin concentrations approximately 20%. Another investigator found no increase in digoxin levels in 12 patients with coronary artery disease. Since there have been conflicting results regarding the effect of digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing CARDIZEM therapy to avoid possible over- or under-digitalization. (See WARNINGS.)

Anesthetics: The depression of cardiac contractility, conductivity, and automaticity as well as the vascular dilation associated with anesthetics may be potentiated by calcium channel blockers. When used concomitantly, anesthetics and calcium blockers should be titrated carefully.

Carcinogenesis, Mutagenesis, Impairment of Fertility. A 24-month study in rats and a 21-month study in mice showed no evidence of carcinogenicity. There was also no mutagenic response in in vitro bacterial tests. No intrinsic effect on fertility was observed in rats.

Pregnancy. Category C. Reproduction studies have been conducted in mice, rats, and rabbits. Administration of doses ranging from five to ten times greater (on a mg/kg basis) than the daily recommended therapeutic dose has resulted in embryo and fetal lethality. These doses, in some studies, have been reported to cause skeletal abnormalities. In the perinatal/postnatal studies, there was some reduction in early individual pup weights and survival rates. There was an increased incidence of stillbirths at doses of 20 times the human dose or greater.

There are no well-controlled studies in pregnant women; therefore, use CARDIZEM in pregnant women only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Diltiazem is excreted in human milk. One report suggests that concentrations in breast milk may approximate serum levels. If use of CAROIZEM is deemed essential, an alternative method of infant feeding should be instituted.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Serious adverse reactions have been rare in studies carried out to date, but it should be recognized that patients with impaired ventricular function and cardiac conduction abnormalities have usually been excluded from these studies.

The adverse events described below represent events observed in clinical studies of hypertensive patients receiving either CARDIZEM Tablets or CARDIZEM SR Capsules as well as experiences observed in studies of angina and during marketing. The most common events in hypertension studies are shown in a table with rates in placebo patients shown for comparison. Less common events are listed by body system, these include any adverse reactions seen in angina studies that were not observed in hypertension studies. In all hypertensive patients studied (over 900), the most common adverse events were edema (9%), headache (8%), dizziness (6%), asthenia (5%), sinus bradycardia (3%), flushing (3%), and 1° AV block (3%). Only edema and perhaps bradycardia and dizziness were dose related. The most common events observed in clinical studies (over 2,100 patients) of angina patients and hypertensive patients receiving CARDIZEM Tablets or CARDIZEM SR Capsules were (ie, greater than 1%) edema (5.4%), headache (4.5%), dizziness (3.4%), asthenia (2.8%), first-degree AV block (1.8%), flushing (1.7%), nausea (1.6%), bradycardia (1.5%), and rash (1.5%).

DOUBLE BLIND PLACEBO CONTROLLED HYPERTENSION TRIALS

Adverse	Diltiazem N=315 # pts (%)	Placebo N=211 # pts (%)
headache	38 (12%)	17 (8%)
AV block first degree	24 (7.6%)	4 (1.9%)
dizziness	22 (7%)	6 (2.8%)
edema	19 (6%)	2 (0.9%)
bradycardia	19 (6%)	3 (1.4%)
ECG abnormality	13 (4.1%)	3 (1.4%)
asthenia	10 (3.2%)	1 (0.5%)
constipation	5 (1.6%)	2 (0.9%)
dyspepsia	4 (1.3%)	1 (0.5%)
nausea	4 (1.3%)	2 (0.9%)
palpitations	4 (1.3%)	2 (0.9%)
polyuria	4 (1.3%)	2 (0.9%)
somnolence	4 (1.3%)	—
alk phos increase	3 (1%)	1 (0.5%)
hypotension	3 (1%)	1 (0.5%)
insomnia	3 (1%)	1 (0.5%)
rash	3 (1%)	1 (0.5%)
AV block second degree	2 (0.6%)	—

In addition, the following events were reported infrequently (less than 1%) or have been observed in angina trials. In many cases, the relation to drug is uncertain.

Cardiovascular: Angina, arrhythmia, bundle branch block, tachycardia, ventricular extrasystoles, congestive heart failure, syncope.
Nervous System: Amnesia, depression, gait abnormality, hallucinations, nervousness, paresthesia, personality change, tinnitus, tremor, abnormal dreams.
Gastrointestinal: Anorexia, diarrhea, dysgeusia, mild elevations of SGOT, SGPT, and LDH (see hepatic warnings), vomiting, weight increase, thirst.
Dermatological: Petechiae, pruritus, photosensitivity, urticaria.
Other: Amblyopia, CPK increase, dyspnea, epistaxis, eye irritation, hyperglycemia, sexual difficulties, nasal congestion, nocturia, osteoarticular pain, impotence, dry mouth.

The following postmarketing events have been reported infrequently in patients receiving CARDIZEM: alopecia, gingival hyperplasia, erythema multiforme, and leukopenia. Definitive cause and effect relationship between these events and CARDIZEM therapy cannot yet be established.

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Special

New laws about sexual misconduct by therapists: knowledge and attitudes among Wisconsin psychiatrists

Kathryn C. Bemmann, MD, Waukesha, and Jean Goodwin, MD, Milwaukee

As many as 7% of psychiatrists admit to having sexual intercourse with patients, despite ethical prohibitions going back to the Hippocratic Oath. Emotional damage, reported by 85% to 90% of involved patients, forms part of the justification for this prohibition. Since 1986, therapist sexual misconduct has been a felony in Wisconsin. Under this law, definitions of sexual exploitation include sexual contact as well as sexual intercourse, and non-psychiatric physicians may be defined as "therapists." In May 1988, Wisconsin legislation became effective requiring therapists to report sexual exploitation revealed in treatment. A 1987 survey of 175 members of the Wisconsin Psychiatric Association showed that a majority favored passage of such a law. More than 40% of surveyed psychiatrists have had experience with such cases, and more than half were willing to provide consultation in this area. *Wis Med J* 1989;88(5):11–16.

SEVERAL NATIONAL SURVEYS of psychiatrists and psychologists have reported that up to 7% of respondents admitted to having sexual intercourse with patients, and about the same number admitted to other types of erotic contact.[1-5] Of those admitting to sexual activity, 80% said multiple patients were involved.[3] Eighty-five percent to 90% of patients experience such sexual contact as damaging.[5] The vast majority of offenders are men.[1,3,5]

Dr Bemmann and Dr Goodwin are members of the Wisconsin Psychiatric Association's Task Force on Therapist Sexual Misconduct. Reprint requests to: Kathryn C. Bemmann, MD, 251 W Broadway, Waukesha, WI 53186. Copyright 1989 by the State Medical Society of Wisconsin.

The Hippocratic Oath states, "In every house where I come, I will enter only for the good of my patients, keeping myself far from all intentional ill-doing and all seduction, and especially from the pleasures of love with women and men."[6] Until recently, the AMA Code of Ethics has not explicitly proscribed sex with patients except as contained in the American Psychiatric Association's annotations to the general medical ethics code for psychiatry, which first appeared in 1973.[7] This addendum, however, has been used by licensing boards to justify disciplinary action against non-psychiatric physicians practicing counseling or therapy (disciplinary proceedings before the MEB against Patrick A. Connerly, MD, and disciplinary action pending before the MEB against Kenneth Kurt, DO). The recently passed AMA ethical code, to be published in 1989, states, "Sexual misconduct in the practice of medicine violates the trust the patient reposes in the physician and is unethical" (personal communication, Counsel for American Medical Association, September, 1988).

Wisconsin has been one of the most active states in the legal handling of sexual exploitation of patients by therapists and physicians. Since the late 1970s, Wisconsin state licensing boards (for medicine, psychology, and nursing) have developed sensitivity and expertise in investigating allegations of sexual misconduct by professionals.

History of Wisconsin legislation

In 1984, legislation was passed making sexual contact during the course of therapy a misdemeanor.[8] In 1986, the law was revised to make such contact a Class D felony.[9] Maximum penalties are a fine of up to $10,000 and imprisonment of up to five years, or both; those cases perpetrated between 1984 and 1986 are still handled as Class A misdemeanors with a maximum fine of $10,000, imprisonment of nine months, or both.[8,9] Now that the behavior is defined as a felony, victims who report it are entitled to assistance from the state's Crime Victim Compensation Fund.[10]

Physicians who are not psychiatrists as well as psychiatrists are included in this law's definition of therapist: "A physician, psychologist, social worker, nurse, chemical dependency counselor, member of the clergy or other person, whether or not licensed by the state, who performs or purports to perform psychotherapy . . . or who holds himself or herself out to be a psychotherapist."[9]

The felony law states specifically that "consent" by the patient is not a factor in defining the therapist's action as a crime. The psychoanalytic literature uses the concepts of transference and transference love to explain why a patient in treatment is incapable of giving truly free and informed consent to a sexual liaison.[11,12] Psychotherapists often compare this form of sexual exploitation to incest and this parallels the legal concept that the physician or therapist stands in a fiduciary or trust relationship to the patient, much as a guardian does to a ward. Case law regarding a guardian's seduction of a ward states:

> The ward cannot . . . surrender these rights of protection. When the guardian thus betrays his trust, and ruins the morals, the character, and reputation of his ward, he should not be heard to say in a court of justice, by way of legal excuse or justification for the seduction, that the ward was capable of consenting. Consent obtained under such circumstances is non-consent and should stand for naught.[13]

The Wisconsin law's definition of sexual assault includes both sexual intercourse (including cunnilingus, fellatio, and anal intercourse) and sexual contact, defined as "intentional touching of intimate body parts for the purpose of sexually humiliating . . . or sexually arousing."[14] For example, the following behaviors have been judged as meeting the legal definition of sexual touching: a) The therapist seemingly attempts to comfort the patient with a hug which progresses to stroking her breasts through her clothing (personal communication, Jean Goodwin, MD), or b) A physician-therapist while doing a vaginal examination begins to caress the patient's inner thigh.[15] Of course, complaints involving multiple incidents, mutual undressing, or sexual intercourse are more prominent among founded cases because there is a greater likelihood of obtaining validating evidence including physical evidence of sexual assault, as well as knowledge by the complainant of scars, nevi, or other anatomic features of the therapist's intimate body parts. Because touch can be interpreted in so many ways, however, most psychiatrists recommend thinking through any physical contacts, including physical examination and "innocent" hugs.[16]

Time limitations on complaints

Once the patient realizes he or she has been sexually exploited and has gotten free from coercion to keep the secret, he or she has six years to report the felony. Such a patient also has the option of bringing civil suit against the therapist, for which the time limit is three years. For both the felony and for the civil suit, the time limit does not run when the victim is unable to complain due to effects of the sexual contact.[17] Although the felony law does not place any ceiling on the total interval, the maximum total time interval allowed before filing a civil action—including extensions—is 18 years. Technically, the licensing boards operate without a statute of limitations in their authority to suspend or revoke licensure, issue reprimands, or make other recommendations about the therapist's practice.

Requirement to report

In May 1988, legislation became effective requiring therapists to report prior sexual exploitation of a patient seen by them in the course of their professional duties[18] (see Figure). Second- and third-hand allegations, rumors, and gossip are not reportable, nor are sexual involvements that are purely social, where a therapist-patient relationship never existed. It is the therapist's responsibility to decide whether a particular case meets criteria for reporting. In complicated or borderline cases, it may be helpful to consult with a psychiatric colleague, legal counsel, or the state licensing board, keeping all identities confidential and documenting in the patient's record the occurrence of such consultation.

When a patient discloses what may be sexual exploitation by a former therapist, the current therapist must decide if it is clinically practical to explore the matter further. If exploration confirms a suspicion of sexual exploitation, the therapist asks the patient if he or she wants the therapist to make a report. For the therapist to report the occurrence, either using the patient's name or not disclosing his or her identity, written consent by the patient is required. Once consent is obtained, the therapist has 30 days to report. The law requires that only the name of the alleged offender be reported. If the therapist believes that the alleged offender is licensed in Wisconsin, he or she must send the report to the Department of Regulation and Licensing, which conducts the systematic inquiries required by the professional examining boards and makes recommendations. The examining boards, however, have the final authority in licensure decisions, and the MEB by statute is the only board with authority to issue a formal complaint against a physician. Thus, even in this somewhat complex system, it is the physician's peers who make the final judgment (80% of MEB members are physicians).

When the report includes the patient's name, investigation by the examining board is mandatory. When the patient remains unwilling to be named, no further legal action of any kind can be taken. (Complaints about physicians, psychologists, and nurses can be initiated by calling the Wisconsin Department of Regulation and Licensing.)

If it appears to the therapist that the alleged offender is not licensed in Wisconsin, the report goes to the district attorney where the contact appears to have occurred. By law, district attorneys have greater latitude than the examining boards about when and how to pursue an investigation.

With a report in which the patient is unnamed, the reporting therapist will be notified if and when one or more other reports have been made about the alleged offending therapist. Whether previous or subsequent reports have patients' names or not, each reporting therapist will be notified of such reports and must decide whether to inform an unnamed patient to determine whether the patient wishes to be named.[18]

The penalty for a therapist's not reporting is a fine of up to $10,000, imprisonment for up to nine months, or both. When a patient is confused about the possible prior sexual exploitation, is too ill to explore the issues, or refuses to consent to reporting, this should be documented. Wherever possible, the patient's signature indicating a desire not to report should be in the record. If the patient cannot or will not sign, this, too, should be noted.

Therapists who make reports in good faith are immune from liability. As of May 1988, Wisconsin was one of only four states with a mandatory reporting law.

Perplexing cases

While legal definitions clarify the vast majority of cases, at least two categories of situations remain perplexing. First is the situation in which a patient's sexual behaviors are so provocative and unexpected that the therapist is taken off guard for the moment. At an extreme, these include the following kinds of occurrences:

- A manic female patient begins rapidly to disrobe in the physician's consulting room.
- A 3-year-old girl grabs the clothed male pediatrician's genitals.
- An adult male patient forces a hug and "deep kiss" on a female physician. (In all three instances, the physician or therapist maintains professional control of the encounter).

These rare occurrences may be mistakenly reported as therapist misconduct by a patient (especially if the patient is psychotic) or by a therapist's co-worker who happens to enter the room only to witness and misinterpret the last brief event.

In general, mistaken or false complaints appear to be no greater in frequency than in sexual assault situations, generally about 6% to 9%.[19] Trained investigators can readily distinguish these reports from the more common patterns of therapist misconduct, which involve repetitive sexual exploitation of one or many patients as well as other boundary violations and abuses of power by the therapist. It is important to remember that in these classic cases, too, involved patients may have problems with sexual acting out. Demonstrating such problems in the patient, however, provides no justification of sexual exploitation by a therapist, and in some states, discovery of the patient's past sexual history is specifically prohibited.

A second category of perplexing situations involves a physician or therapist who treats neighbors, social acquaintances, co-workers, or distant family relations. This is sometimes a problem for practitioners in rural areas. Both therapists and patients in these situations can become confused about roles and boundaries, and seeming or actual sexual exploitation is a possibility even for a physician who is well-intentioned at the outset of the relationship. One study indicates that erotic behaviors by a therapist can be predicted from the presence of other dual-role relationships and breakdowns of boundaries about the time and place of treatment.[20]

Another question that arises in dual-role situations is whether sex with a former patient is permissible and, if so, after what time lapse. Florida law holds that a psychologist-client relationship should be considered as lasting "in perpetuity."[21] Both California and Illinois laws state that sex with patients within two years follow-

Mandated reporting of therapist sexual exploitation: when and how

- Are you in a therapy or counseling relationship with the patient?
- Is the patient describing prior sexual intercourse or sexual contact?
- By someone then engaged in a therapy or counseling relationship with the patient?
- Is the patient clinically well enough to explore these issues?
- Does the patient understand that the therapist's behavior was unethical, possibly criminal, and should be reported?
- Does the patient consent to your reporting the name of the alleged offender?
- Using the patient's name in the report?
- Is the alleged offender a licensed professional? By which board? If not licensed, in which county did the alleged incidents occur?
- Do you need additional consultation or advice?
- Is the patient eligible for crime victims' compensation?

Important phone numbers:

Wisconsin Dept. of Regulation and Licensing	608-266-2811
Ethics Committee, Wisconsin Psychiatric Association	608-257-6781
Crime Victims' Compensation Fund	800-362-3020

ing psychotherapy is cause for a malpractice action.[22,23] Research on psychotherapy indicates that patients experience strong feelings about therapists for five to ten years after stopping treatment and that they use the mental image of the therapist to regulate their inner lives.[24,25]

In addition, certain physician responsibilities continue after termination: maintaining the record, responding to a valid subpoena, and providing follow-up care.[26] One study indicated that two thirds of successfully psychoanalyzed patients recontacted the analyst within the first three years after termination[27]

Although the answer is not yet clear, most psychiatrists would recommend at a minimum that a physician in this situation seek consultation and ensure that the former patient is established with a new treating physician or therapist. Two thirds of a national sample of psychiatrists felt that post-termination sex with a patient is never ethical under any circumstances.[28]

The reverse side of this dual-role question also arises: is it permissible to treat someone with whom the therapist once was sexually involved and, if so, what time should elapse? This is similar to other ethical decisions about whether to treat spouses, relatives, or close friends.

The role of the psychiatrist

Psychiatrists are consulted when a complaint of sexual misconduct comes before the medical licensing board, or in malpractice cases as expert witnesses. Ideally, psychiatrists could assist other physicians and therapists through preventive training and consultation before a problem of sexual acting out or boundary violation escalates to sexual exploitation.

Survey of Wisconsin psychiatrists

This report describes a survey of the 427 members of the Wisconsin Psychiatric Association in 1987 and 1988. The association wanted to assess the level of understanding of the clinical, ethical and legislative aspects of this issue, including attitudes toward the then-evolving legislation mandating reporting.

Methods

Our member survey asked about:

- the psychiatrist's experience treating patients who had been sexually exploited;
- attitudes about present legal handling of complaints and proposed mandatory reporting;
- knowledge about therapist sexual exploitation;
- willingness to do training and clinical consultation in this area.

It was sent in two mailings to all 427 members of the Psychiatric Association. One hundred-eighty-four psychiatrists responded; 175 responses (41%) were complete enough for use in statistical analysis. Respondents identified gender and geographic location:

- the Milwaukee area,
- Madison and southwestern Wisconsin, or
- Wisconsin north of the Madison-Milwaukee line.

One hundred-ten respondents used the option of signing the questionnaire. Data were analyzed using SAS software which generates significance values using chi square, Fisher's Exact Test, and Mantel-Haenszel Chi Square.

Results

Eighty-one percent of the respondents were men, and 76% were from the southern Wisconsin or Milwaukee and Madison areas. Although they comprised only 19% of respondents, women had a slightly higher response rate than men, as did Madison-area psychiatrists, but neither of these differences was statistically significant. Forty-four percent had some experience in the past two years with cases of therapist-patient sexual exploitation.

In terms of attitudes about mandatory reporting, 55.2% of respondents were positive but 21.8% were quite negative. Negative responses often referred to the loss of peer professional control. It should be pointed out, however, that the questionnaire used as an example the Minnesota reporting law, which is substantially different from the one since passed in Wisconsin.[29] Unlike the Minnesota statute, Wisconsin's laws mandate patient consent, and licensure decisions remain with the professional licensing boards.

There were many ideas, often overlapping, about how to manage offenders: 67% thought offenders should receive therapy based on their sexual misbehavior; 47% believed criminal charges should be filed; 46% felt at least two years should elapse before an offender resumed practice; 28% believed that limiting the therapist's practice—eg, to men only or adults only—could work as an alternative to loss of licensure in some cases.

Respondents struggled with questions about who should decide when such an individual could resume practice. The most common suggestion was the MEB, the currently mandated body. Next most common was a special panel. Respondents constructed this entity in various ways, proposing the offender's therapist, the offender's probation officer, the offender's clinical supervisor, MEB members, the offender's peers, the victim, or the victim's therapist. Less frequently mentioned decision-makers were professional organizations, the offender's therapist alone, or courts.

In terms of knowledge and willingness to help, Wisconsin psychiatrists seem to be a good resource. Of 175 respondents, 173 knew that offenses could, at the time of the survey, be reported to the licensing board, local district attorney, or professional ethics committees. Ninety-one percent knew that offenders tend to be recidivists, and 95% knew that the vast majority of offenders are

men. Eighty percent knew that it would be helpful for a therapist to obtain a consultation before dating a former patient. Forty-six percent of psychiatrists responding were willing to do consultations for victims and 35%, for offenders. Thirty-three percent of respondents were willing to do training sessions for hospitals, clinics, and other organizations or groups. More than 53% of psychiatrists were willing to help in at least one of these ways.

Geographic differences. We looked for differences based on respondents' geographic area because one of the three areas was the site of a traumatic case of sexual exploitation involving multiple victims and multiple malpractice actions (Patient Compensation Panel proceeding and Circuit Court actions against Jack D. Edson, MD). Respondents from this area differed from others in only one variable, however. We constructed a very hard line variable that identified respondents endorsing at least six of the following seven responses: mandatory reporting; criminal charges; loss of membership in professional societies; loss rather than limitation of licensure; specific sex therapy required; practice not to be resumed for at least five years (to never); and courts or licensing boards, not the offender's therapist or peers, to decide when the offender can resume practice. Hard-liners tended to cluster in the affected geographic area ($P = .05$). Because there were only ten hard-liners in the entire sample, however, this may not be a valid test.

Gender differences. Surprisingly, significant gender differences were found on only three items:

- Fewer women than men thought offenders could safely retain a limited practice ($\chi^2 = 8.08$; $P = .02$), eg, one limited to patients of the gender not previously exploited).
- More women had had experience treating victims (61% of women *v* 41% of men) ($\chi^2 = 4.309$; $P = .04$).
- Women were more likely than men to propose an innovative answer to the question of who should be the decision-maker about an offender's return to practice. They were more likely to propose a variant of the special panel idea mentioned in the previous section rather than accepting the presented alternatives: licensing board, professional organizations, court, or the offender's therapist alone ($\chi^2 = 8.61$; $P<.003$).

Women were no more likely than men to favor mandatory reporting or criminal charges or to answer "never" to the question of when an offender could return to practice. Only two of the ten hard-liners were women.

The most encouraging finding was that psychiatrists who had recent experience consulting to victims were more likely to volunteer to do more such consultations ($\chi^2 = 12.317$; $P = .002$). This is encouraging because work with victims is often exhausting and complex.

Conclusions

The majority of psychiatrists who responded to this survey favored mandatory reporting. Those who responded negatively often anticipated loss of peer professional control, an assumption not valid in Wisconsin at this time. The majority of psychiatrists were familiar with Wisconsin reporting laws. Sexual exploitation by therapists does not appear to be a "women's issue"; women were no more likely than male psychiatrists to take a hard line on the issue, although they were more likely to have experience. Respondents had thought about and struggled with these confusing ethical issues and were willing to learn more and teach others. A new idea proposed independently by 43 of our 175 respondents (25%) was to create

Abstract

Adrenal insufficiency after operative removal of apparently nonfunctioning adrenal adenomas

We describe a woman who developed adrenal insufficiency after removal of an apparently nonfunctional adrenal adenoma. She displayed no stigmata of Cushing's syndrome and had normal plasma and urinary cortisol levels. A second patient without clinical findings of Cushing's syndrome also had normal basal steroid levels. This patient displayed partial suppressibility with dexamethasone, had low-normal levels of serum corticotropin, and excreted a low concentration of urinary 17-ketosteroids. She also developed mild adrenal insufficiency after the operation. We believe the adrenal adenomas in these patients secreted enough cortisol to suppress the contralateral adrenal gland but not enough hormone to elevate basal steroid levels. Therefore, we suggest that all patients with adrenal masses be studied with the overnight dexamethasone suppression test rather than basal steroid hormone measurements to detect low levels of autonomous cortisol secretion. In addition, patients with adrenal masses that are not removed surgically should have serial adrenal function tests performed.

Christopher M. Huiras, MD, Gregory B. Pehling, MD, and Robert H. Caplan, MD, Department of Surgery (Dr Huiras) and Internal Medicine (Dr Pehling and Dr Caplan), Gundersen Clinic, Ltd, and La Crosse Lutheran, La Crosse, Wisconsin. *JAMA* 1989;261:894–898.

a special panel to monitor the progress of each identified physician-offender.

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Payment of liability claims unrelated to appropriateness of care

A patient who sues an anesthesiologist for malpractice has a significant chance of collecting even when the physician renders appropriate care, according to a study at the University of Washington School of Medicine published in a recent issue of *JAMA*. As part of a three-year study by the Committee on Professional Liability of the American Society of Anesthesiologists, the researchers examined the records of closed malpractice claims filed for anesthesia-related injuries to determine the effect of the standard of care—as judged by a practice group of anesthesiologists—on the likelihood and amount of financial recovery; 1,004 lawsuits were assembled from the files of 17 insurance companies.

For the 869 cases in which the appropriateness of care could be determined, care was scored as appropriate in 46% of cases and inappropriate or below standard in 54%.

Payment was made in 82% of claims filed by patients who were found to have received substandard care, according to the study. Payment was also made in 42% of claims when appropriate anesthesia care was rendered. The study concluded that the tort-based system of patient compensation for injury clearly favors payment to the injured patient, although inequities exist for both the patient and physician.

Community radon awareness and detection: a model program

Melvin S. Blumenthal, MD, and Larry R. Boller, BS, Monroe

A project for increasing public awareness of radon as an environmental hazard was carried out in south central Wisconsin and northwest Illinois using local medical resources. In Wisconsin counties, measured radon levels were equal to or greater than those obtained by a 1986–87 EPA survey. More than 30% of the buildings surveyed exceeded 4 pCi/L, and 10% exceeded 10 pCi/L. Results in Illinois were similar to those from contiguous areas of Wisconsin. In view of the known link between radon-222 exposure and lung cancer, we urge that similar projects be performed by other medical communities across the state and nation.
Wis Med J 1989;88(5):17–21.

RADON HAS INCREASINGLY been recognized in the United States as an environmental carcinogen since 1984.[1] Radium-226, occurring almost universally in the earth's crust, decays to the radioactive gas radon-222 by the emission of alpha particles. Radon-222 then passes through a series of radioactive intermediates, or "radon daughters," releasing more alpha particles and beta radiation, before becoming stable lead-206.

In the air, radon daughters become attached to dust particles, and when inhaled, the dust particles may in turn become attached to the epithelial surfaces of the smaller bronchi in the lower respiratory tract. Although alpha particles penetrate only a short distance (approximately 0.4 mm) into human tissue, irradiation of the basal stem cells at this point in the respiratory tract may induce malignant transformation in these cells.[2] The association between lung cancer and radon daughter exposure is supported by a considerable body of data derived from occupational studies in miners exposed to high radon levels over long periods.[3]

The US Environmental Protection Agency (EPA) has estimated that radon exposure will cause between 5,000 and 20,000 new lung cancers each year, making radon second only to tobacco smoking as a chief cause of lung cancer.

Radon diffuses through the soil along its pressure gradient and enters homes and other buildings through basements and other subsurface areas. Although long-term longitudinal studies are not available, indoor radon levels have probably been increasing for years because of the more air-tight nature of buildings in an era of increasing energy awareness. People also spend more time indoors than previously, which also increases their exposure to radon. Indoor radon concentrations are erratic,[4] however, not always conforming to the subsoil granite formations geologically associated with higher levels of radium. Consequently, each building needs to be tested to determine the radon level and to gauge the risk to its occupants.

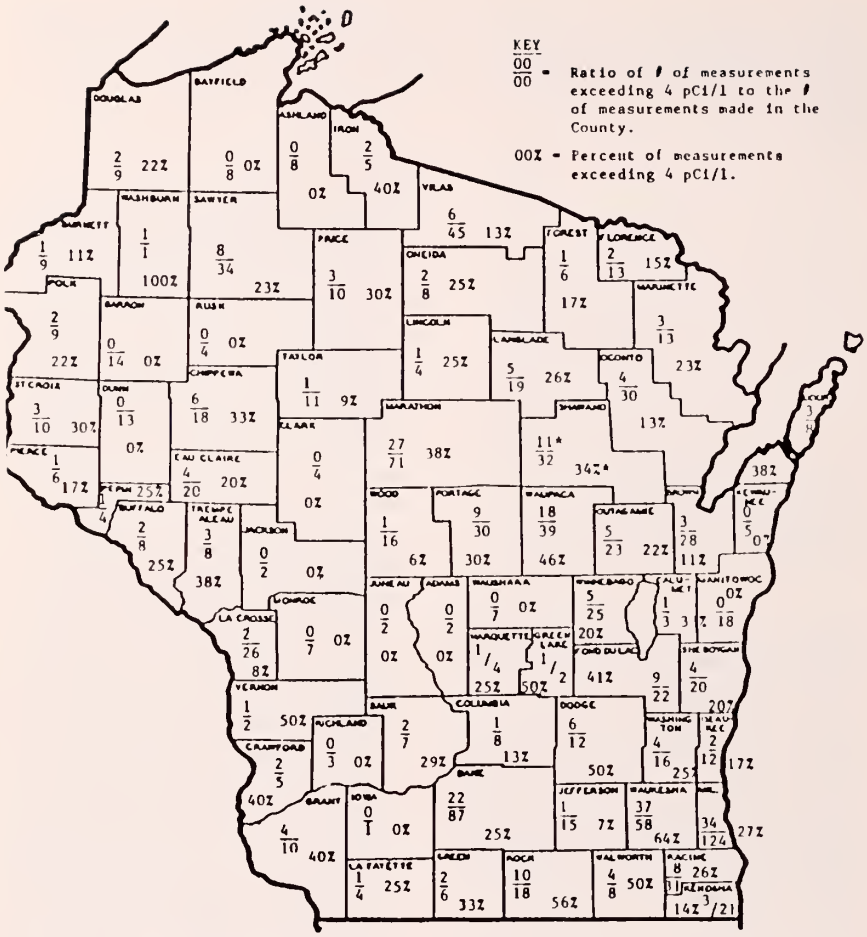
The EPA completed its initial ten-state radon survey in 1987. Data from this survey in Wisconsin indicated that radon levels in many areas were higher than previously suspected. Of the approximately 1,200 homes surveyed in Wisconsin, about 27% had radon levels higher than the 4 pCi/L EPA "action level," and about 5% had levels over 10 pCi/L. Levels were highest in the northeast part of the state where the subsoil is mainly granite, but somewhat surprisingly, they were also high along the southern border with Illinois, where the underlying geology did not predict such high levels (Figs 1 and 2).[5]

Radon in Homes,[6] a report of the Council on Scientific Affairs of the American Medical Association (AMA), which was adopted at the AMA's 1986 interim meeting, recommended that "studies of ambient radon levels should be conducted in representative homes, commercial buildings, and enclosed workplaces of the nation." The AMA also cosponsored with the EPA a series of three regional meetings in the autumn of 1987, including one at Oconomowoc, near Milwaukee, in November 1987.

Although the recognition of radon as a health hazard is high in the Middle Atlantic and New England states, we feel that radon awareness in the Midwest is still quite low, both in the general population and among physicians and other health care workers. Following our participation in the Oconomowoc meeting, therefore, we decided to proceed further with the AMA recommendations by organizing a local community awareness and radon detection program.

Support for this project was obtained from the Monroe Medical Community, Inc, which represents both the physicians of Green County and our regional hospital, St Clare Hospital. Although community radon projects have been conducted in other states, they have been organized by governmental health agencies or by voluntary organizations such as the

Dr Blumenthal is with the Monroe Clinic and Boller is with St Clare Hospital in Monroe. Reprint requests to: Melvin S. Blumenthal, MD, the Monroe Clinic, Monroe, WI 53566; telephone: 608-328-7224. Copyright 1989 by the State Medical Society of Wisconsin.



* Results for Shawano County include the two measurements taken in Menominee County.

Fig 1.—Results of radon home survey by county, 9/1/87 (from the 1986–87 Wisconsin EPA Survey).

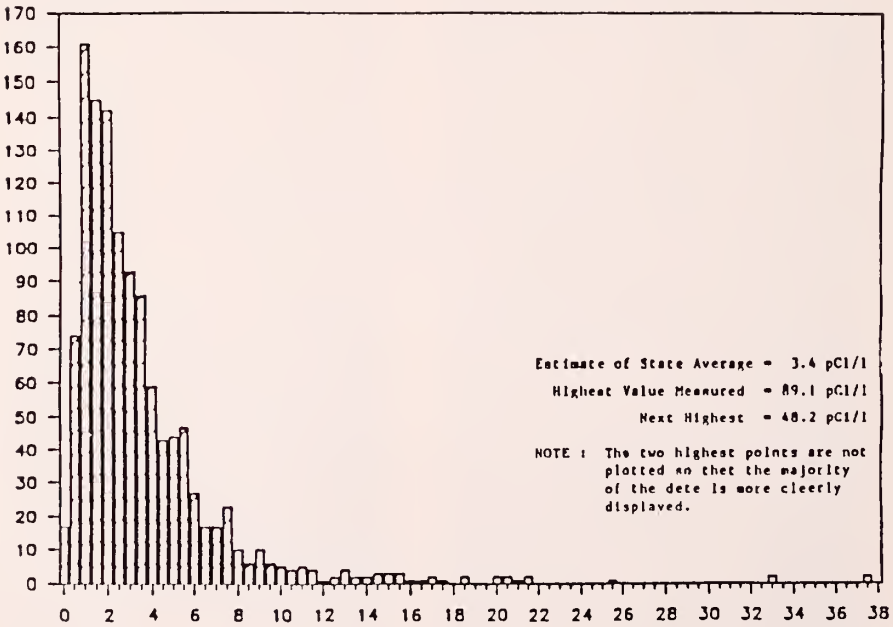


Fig 2.—Random distribution of 1,191 homes (from the 1986–87 Wisconsin EPA Survey).

American Cancer Society. As an alternative, we wished to use a local physician-hospital organization as both the organizer and the source of expertise.

The objectives of the project were to increase community and physician awareness through a well-planned publicity and education campaign, and to survey more widely the distribution of radon levels in both homes and commercial buildings in south central Wisconsin and northwestern Illinois. Since only six homes in Green County had been included in the EPA survey, we also wished to confirm those results by collecting additional data. No survey had been done in northern Illinois, which made our project more interesting.

To keep expenses low, charcoal testing canisters were distributed to the public at cost and were analyzed by an EPA-approved commercial firm. Professional time was donated.

The selection of homes and commercial buildings was not random. In view of the local and regional variability of radon levels, however, and the effect of individual building construction on radon entry and egress, we felt that obtaining data from a large number of buildings would fulfill our objectives.

Methods

Monroe, which is nine miles north of the Wisconsin-Illinois border, has a population of 10,000 and a five-county service area approaching 150,000. Working with us, the St Clare Hospital marketing department designed a media campaign to educate health professionals and the public about the hazards of radon and how to identify and limit exposure. Our intent also was to motivate people to participate in the survey.

Many media were used to carry information.[7,8] A press conference announced the survey program; our quarterly newsletter focused on cancer issues, and especially on radon, and was mailed to 43,000 households; six different news releases were

issued over a three-week period; and speaking engagements were solicited by mail and telephone, resulting in 22 talks to service and fraternal organizations by the authors.

With this groundwork in place, we scheduled and publicized four distribution dates for the survey kits. To make it as convenient as possible, distribution was scheduled on Friday nights and the following Saturday mornings, with a two-week gap between the first and second series. Distribution points were scattered throughout communities in our service area, using medical offices and pharmacies. Kits also were available by mail and at St Clare Hospital.

For consistency with the EPA survey, our protocol for use of the charcoal canister required that outside air circulation through the basement of a building be minimized, and so distribution was scheduled during the late winter and early spring. Of the 860 kits distributed, most were sold during the two scheduled weekends, and the entire distribution was completed by March 30, 1988.

Survey kits included the charcoal canister with a prepaid mailer, printed instructions, and copies of the EPA publications *A Citizen's Guide to Radon* and *Radon Reduction Methods: A Homeowner's Guide*. Kits were sold at cost. Members of the St Clare Hospital respiratory therapy staff, who had been specially trained to issue standardized instructions and to answer commonly asked questions, distributed the kits. As a result, the purchaser received consistent instructions both verbally and in writing.

Because of the potential financial effect on persons owning buildings with high radon levels, data returned to us were identified only by zip code. Results were mailed confidentially from the processor.

Although there are alternative methods available for measurement of indoor radon levels, the EPA survey had used the charcoal canister, and for consistency we also chose the charcoal canister. This technique allows results to be obtained more quickly and at lower cost than other methods.

Table 1.—Comparison between Wisconsin/EPA study and Monroe Medical Community results by county. For consistency MMC percentages are rounded to whole numbers.

	Green Co.		Rock Co.		Lafayette Co.	
	EPA	MMC	EPA	MMC	EPA	MMC
n =	6	326	18	44	4	29
pCi/L						
0–4	4 (67%)	229 (70%)	8 (44%)	33 (75%)	3 (75%)	15 (52%)
4.1–10	2 (33%)	74 (23%)	9 (50%)	7 (18%)	1 (25%)	9 (31%)
>10.1	0	23 (7%)	1 (6%)	3 (7%)	0	5 (17%)
	100%	100%	100%	100%	100%	100%

We selected a processor based on three factors: demonstrated proficiency by EPA criteria, reasonable cost, and a nearby location, with the ability to supply large quantities of the canisters at short notice.

All analyses were performed by Health Physics Associates (Northbrook, Ill) using a Nuclear Chicago scintillation counter with a five-inch crystal. Counts were done for five minutes with sampling set for the peak of radon-222. The counter was calibrated daily, using a known quantity of radium with cesium-137 as the control standard.

Data were analyzed using Lotus 1-2-3 (Lotus Development Corp) and Quattro (Borland Publishing) standard statistical and graphics programs. We tried to parallel the data presentation of the EPA survey whenever possible.

Sample data were grouped by the following geographic areas:

Total

Wisconsin
Illinois

Green County (Wisc)
Rock County (Wisc)
Lafayette County (Wisc)

Stephenson County (Ill)
Jo Davies County (Ill)

The EPA survey randomized the selection of homes, but weighted that selection toward the areas of the state known to contain large deposits of granite. As a result, the sample included only 28 homes in Green, Rock, and Lafayette counties combined. Our survey contained 399 readings for those three counties and included both homes and commercial buildings. A comparison of the two studies is shown in Table 1.

Our sample was selected by public interest. While this might create a bias toward building owners who are more motivated toward good health practices, we did not see a reason to suppose that they would tend to live in homes or work in offices that are significantly different in radon levels than those selected by random sampling.

Data were treated as less than one whole number but greater than another (0–2, 2.1–4, 4.1–8, etc). Thus, homes falling just at the 4.000 pCi/L "action level" were grouped with the "less than 4 pCi/L" group.

Results

A total of 831 readings was obtained. An additional 29 canisters were distributed for second tests, either to confirm initially high readings or to retest after remedial steps had been taken. These 29 repeat studies are excluded from the display analysis.

The results are listed in Table 2 by state and county within our service area. Four hundred seventy-eight (57.5%) were in Wisconsin, and 353 (42.5%) were in Illinois. Of the total group, 94 (11.3%) were in areas outside our region of primary interest.

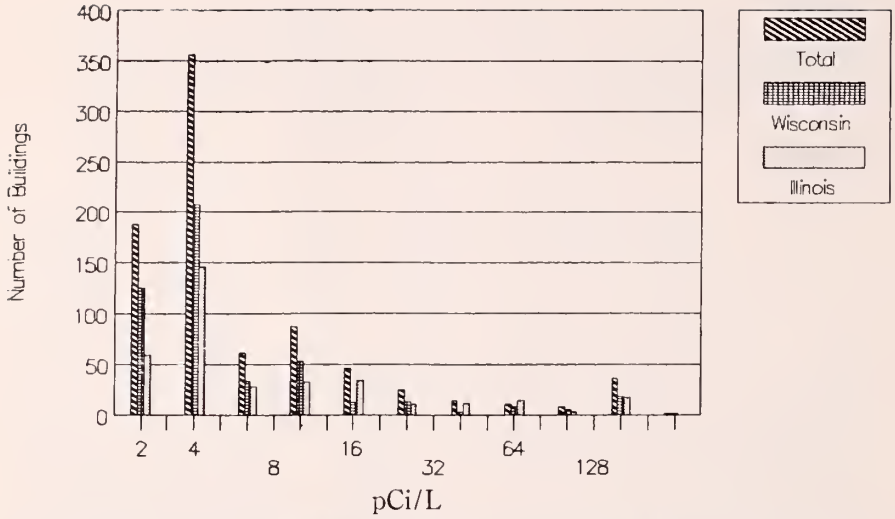


Fig 3.—Monroe Medical Community Survey; distribution of charcoal canister radon levels by location and number of buildings (n = 831).

The distribution of charcoal canister readings by number of buildings and radon level is presented in Fig 2. The percentages of buildings with readings greater than 4.0 pCi/L and greater than 10.0 pCi/L are displayed by state and county in Fig 3. In general, the levels measured in Green County were similar to those found by the EPA, but the number of sites above the 4.0 pCi/L level was higher in Lafayette County and lower in Rock County than in the EPA survey.

In Illinois, radon concentrations were even higher than those found in Wisconsin; 42.2% were above the 4.0 pCi/L level. Of interest is the finding that 51.8% of sites tested in Jo Davies County were above 4.0 pCi/L, compared to 48.3% in Lafayette County, since these two counties are contiguous (Fig 3).

Discussion

Our survey found the number of homes in south central Wisconsin having excessive radon levels to be somewhat higher than was estimated by the smaller EPA survey in 1986–87. Our findings also suggest that the number of buildings in northwest Illinois with elevated radon levels is somewhat higher than in contiguous areas of Wisconsin. (No statewide survey has been done in that state.) In both states, there is a trend toward higher radon levels as one moves west in this region. This geographical pattern was noted both for buildings above the 4.0 pCi/L

Table 2.—Radon survey results

Population	Total	Total Wisconsin	Total Illinois	Total Other*	Wisconsin Counties Green	Lafayette	Rock	Illinois Counties Stephenson	Jo Davies
n =	831	478	353	94	326	29	44	170	170
Mean	5.3	5.1	5.6	n/a	5.3	12.3	2.6	5.8	5.3
Median	3.6	3.4	3.8	n/a	3.9	6.2	3.3	3.3	3.8
Standard deviation	6.8	7.2	6.2	n/a	5.9	8.4	5.2	4.9	4.9
Activity piC/L									
0–2	187	125	59	41	66	11	10	33	23
2.1–4	356	207	145	19	163	4	23	84	59
4.1–6	61	33	28	2	24	6	3	14	14
6.1–8	87	53	32	8	42	1	3	15	16
8.1–10	46	12	34	1	8	2	2	7	26
10.1–12	25	13	10	2	10	0	2	4	5
12.1–14	14	3	11	0	2	3	0	4	5
14.1–16	10	8	14	1	8	1	0	4	8
16.1–32	8	5	3	3	1	0	1	3	0
32.1–64	36	18	17	17	2	0	0	2	14
64.1–128	1	1	0	0	0	1	0	0	0
	831	478	353	94	326	29	44	170	170
Percent of building > 4 pCi/L	34.7%	30.5%	42.2%	36.2%	29.8%	48.3%	25.0%	31.2%	51.8%
Percent of building > 10 pCi/L	11.3%	10.0%	15.6%	24.5%	7.1%	17.2%	6.8%	10.0%	18.8%

*These kits were used outside our 5 county service area.

level and for those above the 10.0 pCi/L level.

We agree with previous studies that measurements using four-day canister exposures reflect a worst-case situation in basements during the winter months, when outside air circulation in a building is at a minimum. The EPA guidelines are based on *annual average* exposure and would, therefore, require use of an alternative method of radon measurement (such as the alpha track detector) employed over at least several months of exposure. This period makes these other techniques unsuitable for a large-scale survey.[9] We advised owners of homes with levels above the 4.0 pCi/L level (as determined by charcoal canister) to verify them with an alpha track detector before undertaking extensive remedial work on their buildings. It should also be emphasized that no epidemiological study has yet matched cancer rates with specific household radon levels.

Since radon levels vary from building to building even within a small geographical area, buildings must be measured individually. In the Monroe Medical Community project, local medical resources provided the manpower and expertise to organize and support a community education program and an extensive radon survey. While it is impossible to measure the success of our educational efforts, the number of survey kits distributed suggests at least a significant awareness and concern in our communities. We urge other medical facilities to consider similar projects, since in this way we may ultimately help reduce the risk of lung cancer.

In the past, the medical profession was closely involved at a local level with important public health issues.

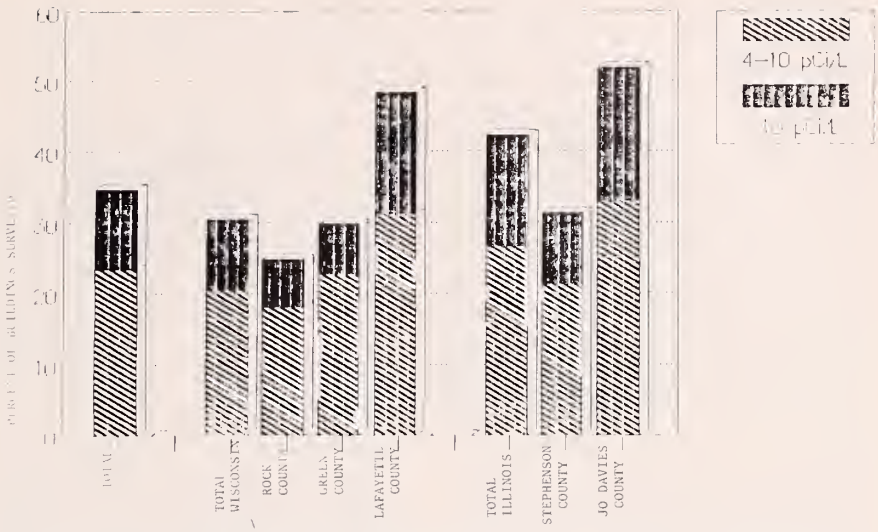


Fig 4.—Percent of buildings with concentrations greater than 4pCi/L and 10pCi/L.

But as the major infectious diseases have come under control, this involvement has greatly decreased. Now we are challenged by both new and newly recognized diseases of environmental origin, of which radon-induced lung cancer is a good example. In the eastern United States radon detection and mitigation have become a highly commercialized industry of significant size, sometimes tainted by fraud.[10]

Our project was an effort to put leadership on an important local public health issue back into the hands of physicians and health workers before it could be assumed by purely commercial interests. Its success demonstrates that the public is receptive to this approach and appreciative of this reaffirmation of our historic role.

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Diagnosis of renal osteodystrophy with the Jamshidi needle biopsy

Philip J. Dahlberg, MD, La Crosse

Nineteen bone biopsies with the Jamshidi needle were performed in 18 patients with renal osteodystrophy. The procedure was performed in the office or at the bedside and was tolerated well by all patients. These biopsies, plus clinical and laboratory studies provided all the information necessary to make therapeutic decisions. For most clinical purposes, serum calcium, phosphate, and alkaline phosphatase, a parathyroid hormone assay, spine and hand roentgenograms, and a tetracycline-labeled Jamshidi needle biopsy of the iliac crest are satisfactory for the evaluation of renal osteodystrophy. *Wis Med J* 1989;88(5):22–24.

All patients on dialysis have histologic bone abnormalities that reflect the perturbations of calcium, phosphate, parathyroid hormone, vitamin D, and aluminum that are inherent to chronic renal failure. Hyperparathyroid bone disease predominates early, but with continued aluminum exposure, osteomalacia becomes more frequent.[1,2] Prophylactic therapy to prevent progressive renal osteodystrophy is a fine art that includes calcium supplements, alkali, high dialysate calcium, vitamin D analogues, phosphate binders, a low phosphate diet, and aluminum-free dialysate. The search for non-aluminum-containing phosphate binders continues, but most dialysis centers still use aluminum hydroxide antacids to control phosphate levels.

Despite our best efforts, many patients will develop symptomatic bone disease, hypercalcemia, soft tissue calcification or evidence of aluminum intoxication requiring more aggressive therapy. A number of studies have shown that non-invasive studies have poor sensitivity and specificity in distinguishing osteitis fibrosa, aluminum-osteomalacia and mixed osteodystrophy. These studies all suggest that therapy is best guided by an anterior iliac crest bone biopsy after double tetracycline labeling.[2-5]

A 7.5 mm trephine biopsy of the anterior iliac crest described by Johnson et al is the standard technique described in American literature.[6] This procedure is expensive and requires special skills and instruments. A recent report of 72 outpatient biopsies advocates this technique; 24% of these patients, however, described severe pain at the time of the biopsy, 25% could not walk for five to six hours afterwards, 9% still described severe pain after seven days, and 5% required a cane or crutches to walk for several days after the procedure.[7]

We have found that a Jamshidi needle biopsy of the anterior or posterior iliac crest provides adequate qualitative information to make therapeutic decisions. This is a simple office procedure that is well tolerated and can be repeated if necessary.

Patients and methods

We currently serve a dialysis population of 52 chronic hemodialysis patients and 23 chronic peritoneal dialysis patients. The bone biopsies described here were performed during a two-year period between March 1986 and March 1988. Treated hemodialysis water aluminum levels have all been less than 10 μg/L. Bone biopsies were performed on 17 dialysis patients and one transplant patient. Tetracycline labeling was done with demeclocycline 150 mg four times a day on days 1, 2, 3, 18, 19, and 20. Antacids were not administered on these days. The biopsies were performed between days 22 and 26.[7]

Indications for biopsy included pain, proximal muscle weakness, fractures, hypercalcemia, or a positive deferoxamine infusion test. No patient received preoperative medication or coagulation testing. The biopsies were performed on the afternoon after dialysis or on a nondialysis day. Peritoneal fluid was not drained preoperatively in peritoneal dialysis patients.

The first 15 biopsies were perormed on the posterior iliac crest. The last four biopsies were performed on the anterior iliac crest. All biopsies were done in the office or at the bedside. The technique was identical to that used for obtaining bone marrow biopsies for hematologic evaluation except no marrow aspirates were obtained and the biopsy included outer cortex rather than marrow alone.

After the biopsy site was selected, the skin was prepared with iodine and alcohol and draped. The skin, subcutaneous tissue and periosteum were anesthetized with a 1% lidocaine solution. An 11 gauge Jamshidi needle with the trochar was positioned on the bone surface. The trochar was then removed and the needle advanced into the bone with steady pressure and rotary movement. Care was given to keep the needle absolutely perpendicular to the bone surface while it was being advanced to avoid fragmenting the bone. After the needle was advanced 2 cm, it was rotated three turns clockwise, three turns counterclockwise and waggled back and forth to break the core of the bone at the tip of the needle. This procedure was performed one to three times in each patient to obtain at least 2 cm of bone.

The small cores of bone were gently wrapped in sterile 2 x 2 cm gauze and placed in a 70% alcohol solution (pre-

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measured for aluminum content). (The specimen should not be placed in a decalcifying solution because undecalcified bone is required for histomorphometric analysis and histochemical aluminum staining.)

Bone specimen preparation, histomorphometric quantitation, histochemical aluminum staining and histologic interpretation were performed at the Mayo Bone Histomorphometric Laboratory under previously published methods and criteria.[8] All clinical, laboratory, and radiographic results were sent with the bone biopsy to assist in interpretation.

Deferoxamine infusions tests were performed using the protocol described by Milliner et al.[9] Serum aluminum and immunoreactive parathyroid hormone assays were performed by the Mayo Medical Laboratories. These patients were evaluated while we were changing from the C-terminal to the N-terminal parathyroid hormone assay. Histomorphometric data are not reported because of the large co-efficient of variation due to the small sample size and because normal values have been described from trephine anterior iliac crest biopsies.

Results

Of the 18 patients in our study, six were men and 12 were women; their ages ranged from 43 to 78 years. The duration of dialysis was from 6 to 102 months prior to the biopsy. Patient 10 had received a kidney transplant 42 months before the biopsy. Three patients had subtotal parathyroidectomies 27 to 36 months prior to the biopsy (patients 1, 3, and 10); all three had aluminum-associated osteodystrophy. Fifteen patients had pain, proximal muscle weakness, or fractures. Patient 5 also had ataxia and myoclonus. Patient 4 underwent a biopsy because of a positive deferoxamine infusion test, patient 12 because of hypercalcemia. Patient 11 had a second biopsy after completing a six-month course of deferoxamine because of persistent pain.

Bone roentgenograms demonstrated subperiosteal resorption in patients 2, 6, 7, 13, and 14 and fractures in patients 2 and 13. Roentgenograms in the others were nondiagnostic. Deferoxamine infusion tests were interpreted as positive if there was greater than 200 ng/mL increase in serum aluminum following deferoxamine.[9] Eleven tests were performed with a sensitivity of 50% and a specificity of 80% in predicting aluminum-associated osteodystrophy. We used the C-terminal parathyroid hormone assay (normal, <50 U/Eq/mL) for the first 11 biop-

Jamshidi needle bone biopsies for renal osteodystrophy.

Patient	Calcium (mg/dl) (8.5–10.4)	Phosphate (mg/dl) (2.5–4.5)	Alkaline phosphatase (IU/L) (20–90)	Parathormone assay *(see text)**		Serum aluminum (Al) (<40 ng/ml) *Pre-dialysis*	*Post-DFO*	Bone biopsy results *Al Stain*	*Interpretation*	Therapy
1	11.8	4.8	68	160		151	250	+	Osteomalacia (OM)	Deferoxamine (DFO)
2	10.1	4.8	216	4100		72		–	Hyperparathyroid (HPT)	Parathyroidectomy (PTX)
3	9.0	4.3	84	42		32	400	+	Low turnover (LTO)	DFO
4	8.8	6.0	142	450		130	443	+	Mixed (HPT/OM)	Medical
5	9.4	5.2	89	81	C-terminal	198	305	+	OM	DFO
6	12.1	5.0	107	2200		70	217	–	HPT	PTX
7	11.0	4.4	115	2200		119		trace	HPT	PTX
8	8.0	4.3	64	330		64	89	–	LTO	Medical
9	9.4	10.5	457	450		114	370	+	Mixed (HPT/OM)	DFO
10	6.5	4.4	77	77		20		+	OM	DFO
11	10.1	4.7	61	590		192	370	+	OM	DFO
	10.7	6.6	56	6.3		105		–	HPT	Medical
12	11.5	5.2	117	4.0		36	114	–	Normal	Medical
13	11.1	6.7	159	84		106		–	HPT	PTX
14	10.0	4.5	536	28	N-terminal	25		–	HPT	PTX
15	10.5	4.3	323	13		48		–	HPT	Medical
16	12.6	4.6	102	6.5		56		–	OM	Medical
17	9.7	7.4	217	5.2		167	116	–	HPT	Medical
18	9.2	4.1	122	1		71	502	–	LTO	Medical

*C-terminal parathormone assay used in first 11 patients and N-terminal assay used in last eight.

sies and the N-terminal assay (normal, <6.1 pmol/L) for the last eight biopsies. A C-terminal assay greater than 2,000 U/eq/mL or an N-terminal assay greater than 10 pmol/L had a sensitivity of 75% and a specificity of 100% in predicting hyperparathyroid bone disease.

Patient discomfort ranged from mild to moderate during the biopsy. There was no post-biopsy pain or morbidity. All biopsies were adequate for histologic interpretation and aluminum stains. The Table illustrates the laboratory results, biopsy results and therapy prescribed.

Discussion

The pathology of renal osteodystrophy is a spectrum that ranges from osteitis fibrosa to osteomalacia. The serum calcium may be elevated in either. An elevated alkaline phosphatase favors hyperparathyroidism, but is not specific,[2] and 1, 25$(OH)_2$ vitamin D levels are low in both disorders and only of diagnostic value in the rare occurrence of granulomatous disease in renal failure.[10] Very high levels of serum aluminum and positive deferoxamine infusions tests may reflect an increased aluminum burden, but neither is reliably predictive of aluminum-associated bone disease.[4,5,9,11] Very high levels of immunoreactive parathyroid hormone and the demonstration of subperiosteal resorption, osteosclerosis, or rugger-jersey spine are specific but insensitive indications of osteitis fibrosa.[2,12] They do not provide needed information about concurrent aluminum toxicity. Upper rib fractures and avascular necrosis suggest aluminum toxicity.[12] Low or unexpectedly normal parathyroid hormone levels and a low red cell mean corpuscular volume (in the absence of iron deficiency) suggest aluminum osteomalacia.[11,13]

Although the trephine biopsy is recommended by American investigators, German and Australian authors have relied on the Jamshidi needle biopsy.[2,14] The following simple diagnostic approach to renal osteodystrophy is recommended:

- a serum immunoreactive parathyroid hormone assay,
- a hand roentgenogram with fine grain film,
- an anterior and lateral spine roentgenogram (which will include the upper posterior ribs), and
- a tetracycline-labeled bone biopsy as described under Patients and Methods.

Additional roentgenograms, aluminum levels and deferoxamine infusion testing can be reserved for selected patients.

The great value of this technique is its simplicity and patient acceptance. A histologic diagnosis, estimate of bone mineralization and the histochemical presence or absence of aluminum are all that are required for most clinical purposes. This information is obtainable with a Jamshidi biopsy, making the above information available to any practicing nephrologist.

The disadvantages of the technique are the small size of the biopsy and the unreliability of histomorphometric analysis using specimens from differing biopsy sites. We are changing from posterior to anterior iliac crest biopsies to minimize this. Although this approach will permit a precise histologic diagnosis and an estimate of aluminum burden, the subsequent therapeutic decisions are far from simple.

Acknowledgment

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Computerized tomography in metastatic evaluation

Roy E. Smith, MD, Dale Berg, MD, and Richard M. Hansen, MD
Milwaukee

A case is presented in which a radionuclide liver-spleen scan suggested multiple space-occupying lesions compatible with multiple metastases. Computed axial tomography, however, demonstrated more generalized hypodensity without focal defects, and liver biopsy confirmed the presence of fatty infiltration and cirrhosis. The sensitivity and specificity of liver spleen scans and computed axial tomography scans compared to liver biopsy are reviewed. In the evaluation of hepatic metastases, computed axial tomography scanning should be the diagnostic imaging procedure of choice. *Wis Med J* 1989;88(5):25–27.

LIVER-SPLEEN SCINTIGRAPHY, using Au^{198} or Tc99M sulfur colloid, for many years has been used in the evaluation of patients with hepatic abnormalities, especially in patients with suspected space-occupying intrahepatic lesions.[1] Computed axial tomography (CT), a new modality in liver imaging based upon density differentiation, has replaced radionuclide liver-spleen scans in the evaluation of many of these patients.[2] In this case report we describe a patient in whom radionuclide scanning produced misleading information that was later clarified by a CT scan and liver biopsy.

Case Report

A 72-year-old woman was found to have hepatosplenomegaly and pancytopenia. She gave no history of easy bruising, epistaxis, hematuria, gastrointestinal bleeding, weight change, constitutional symptoms, fevers, past history of hepatitis, ethanol use, intravenous drug abuse, blood transfusions, or hematologic diseases. She had not traveled from the Milwaukee area since moving there from Mexico seven years previously and had no previous hematologic parameters for comparison.

On physical examination she appeared to be of appropriate age, adequately nourished, and without distress. Her vital signs were normal, and she was afebrile. Her liver was non-tender and its smooth edge extended 15 cm below the right costal margin at the mid-clavicular line. The spleen was palpable 4 cm below the left costal margin. There were no rectal masses and her stool was hemoccult negative. The remainder of her examination was unremarkable.

The laboratory evaluation revealed the following: hemoglobin, 12.8 g/dL; hematocrit, 37%; and white blood count, 4,700/mm^3 with 67% granulocytes, 1% bands, 26% lymphocytes, and 6% monocytes. The red cell indices were normal, and the reticulocyte count was 5.2%. Platelet count was 91,000/mm.^{3} Red blood cell and platelet morphology were both normal. Other values were as follows: Westergren erythrocyte sedimentation rate, 26 mm/hr (normal, 0 to 20); LDH, 147 IU/L (normal, 90 to 160); alkaline phosphatase, 90 IU/L (normal, 37 to 100); SGOT 37 IU/L (normal, 16 to 40), SGPT, 32 IU/L (normal, 11 to 38); GGT, 67 IU/L (normal, 4 to 36); albumin, 4.4 g/dL (normal, 3.7 to 4.8); total bilirubin, 2.5 mg/dL (normal, 0.2 to 1.2); and a direct bilirubin 0.1 mg/dl (normal 0 to 1.5).

Calcium and phosphorus concentrations and the prothrombin time and partial thromboplastin time were normal, as were results from a direct

Fig 1.—Tc99M sulfur colloid liver-spleen scintigraphy. Right anterior view showing irregular distribution of radiotracer throughout liver with increased uptake in enlarged spleen.

The authors are with the Medical College of Wisconsin, Drs. Smith and Hansen in the Division of Hematology/Oncology and Dr Berg in the Department of Medicine. Reprint requests to: Roy E. Smith, MD, Division of Hematology/Oncology, Box 133, Milwaukee County Medical Complex, 8700 W Wisconsin Ave, Milwaukee, WI 53226. Copyright 1989 by the State Medical Society of Wisconsin.

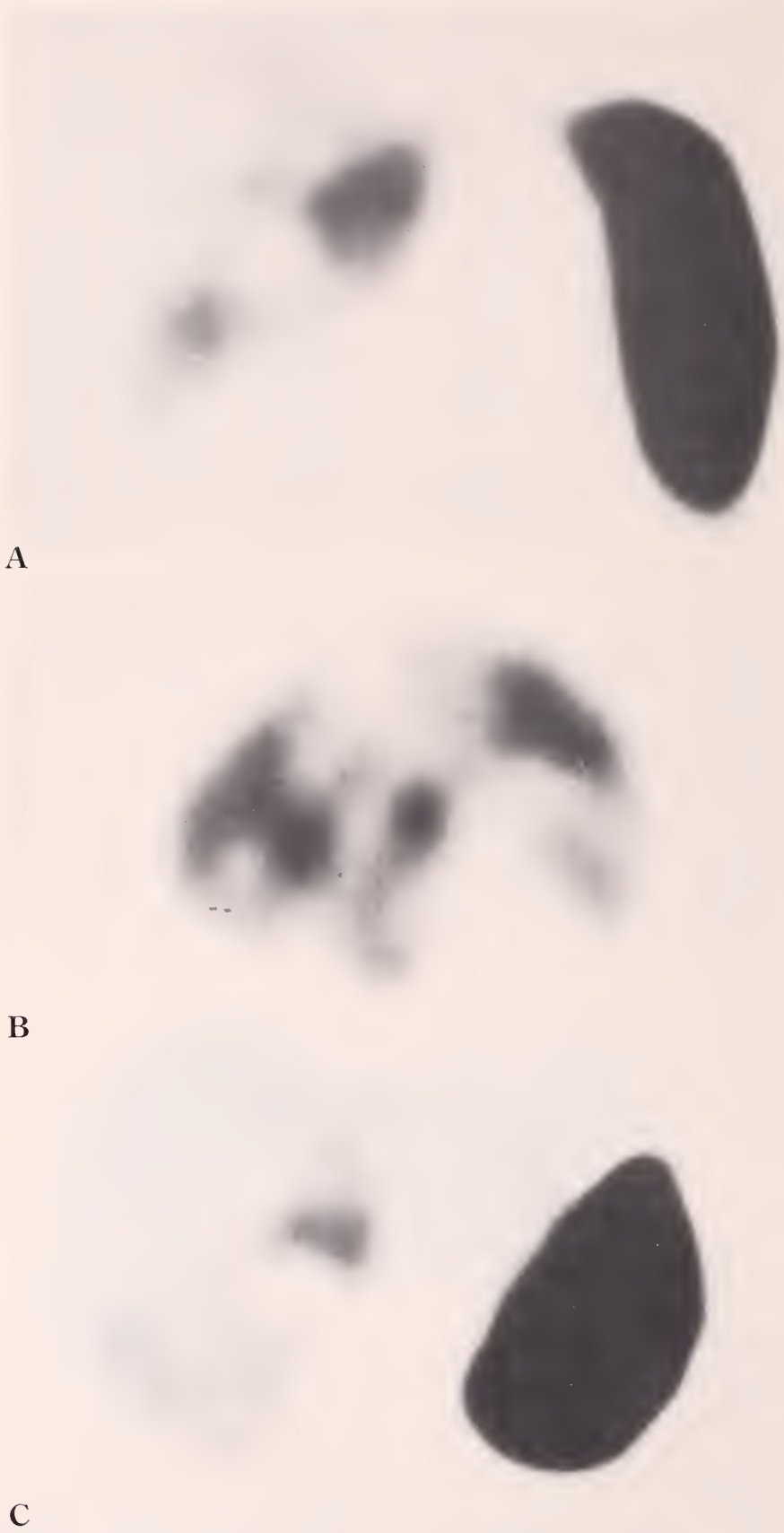

Fig 2.—SPECT. A) Anterior, B) Sagittal, and C) Transaxial views, showing multiple large defects in both right and left lobes of liver.

Coomb's test, serum protein electrophoresis, urinalysis, chest roentgenogram, and EKG. The hepatitis A and B panels were negative, and a PPD skin test was non-reactive. There was no evidence of either antimitochondrial or antiplatelet antibodies. The antinuclear antibody test was marginally positive (titer of 1:40) in a non-specific pattern. A bone marrow aspiration and trephine biopsy revealed panhyperplasia with normal iron stores.

A radionuclide liver spleen scan and single photon emission computed tomography (SPECT)[3] scan were obtained and revealed an irregular distribution of the radiotracer throughout the liver (Fig 1). The right lobe of the liver and spleen appeared enlarged at 16 and 18 cm, respectively. Axial SPECT imaging, obtained through the liver and spleen, revealed multiple large focal defects involving both the right and left lobes of the liver (Fig 2).

Dynamic CT[4] of the liver and spleen using 1 cm slices was obtained within 24 hours of the abnormal radionuclide liver-spleen scan. The liver was normal in size with areas of decreased density throughout; no focal defects were seen. The biliary tree and pancreas were normal. The spleen was markedly enlarged and contained several tiny calcified granulomata (Fig 3).

To resolve the apparent discrepancies between the abnormal radionuclide liver-spleen scan and CT scan, a percutaneous liver biopsy was performed, which revealed cirrhosis with fatty infiltration. There was no evidence of malignancy, abscess, infection, or granuloma. The diagnosis of idiopathic micronodular cirrhosis with hypersplenism was made. No specific therapy was given. Hematologic parameters and hepatic enzymes remained unchanged 12 months later, as did CT scan results.

Discussion

It has long been realized that both the sensitivity and specificity of radionuclide liver-spleen imaging, espe-

cially in cases of small infiltrative hepatic abnormalities, are less than ideal. Knopf, et al[5] in a retrospective study comparing liver-spleen scintigraphy and CT scanning with liver biopsy in 84 patients found that liver-spleen scintigraphy was correct only 79% of the time, with false-negative and false-positive rates of 18% and 4%, respectively. CT scanning in the same patient group had an overall accuracy of 98% with only a 2% false-negative rate.

These results are particularly enlightening when taken in the context that the CT scans at the time of this study were of a more primitive generation and without the high resolution of today's standards. Also, it is of great interest that most of the false negatives using liver-spleen scintigraphic scans were in cases with small lesions, ie, lesions that were early and potentially more treatable. In addition, these investigators found that 66% of the false positives were due to extrahepatic pathology that could not be differentiated from intrahepatic disease using liver-spleen scintigraphy, but could be easily differentiated using low resolution CT scans of that era.

In a more recent study, Miller, et al[6] compared hepatic CT scans, liver-spleen scintigraphy, and exploratory laparotomy with a liver biopsy in 19 patients. All of these patients had a primary or recurrent malignancy and had potential space-occupying hepatic metastases. Eleven of these patients had pathologically proven hepatic metastases. Of these 11 patients, all had both abnormal CT scans and liver-spleen scintigraphy, consistent with liver metastases. Of the eight who had no proven liver metastases at laparotomy and biopsy, however, two had false-positive CT scans and three had false-positive, liver-spleen scintigraphy scans.

This small study also demonstrated that CT scanning, even in its primitive stages before the development of newer generation high resolution scans was more accurate than the liver-spleen scintigram, which was lower in specificity and sensitivity.

Fig 3.—Dynamic CT scan of liver and spleen. Liver and biliary tree are normal; spleen is enlarged.

Conclusion

In this patient a liver-spleen scintigram suggested the presence of multiple space-occupying intra-hepatic lesions that were not present on either a CT scan or liver biopsy. As discussed above, the usual limitation of liver-spleen scans is not one of false positives, but of false negatives, especially in early, potentially treatable hepatic lesions.

This case demonstrates that not only falsely negative, but also falsely positive liver-spleen scintiscans can adversely affect patient management. A false-negative scan may result in failure to diagnose early, potentially treatable lesions. In contrast to this, as in the case presented here, a false positive scan may cause the patient the inconvenience and expense of additional unnecessary confirmatory measures.

This case, a review of the literature, and the availability of new techniques for increasing the sensitivity and specificity of CT scans indicate that CT scanning should in most, if not all cases, replace liver-spleen scintigraphy in the imaging of the liver for suspected space-occupying lesions.

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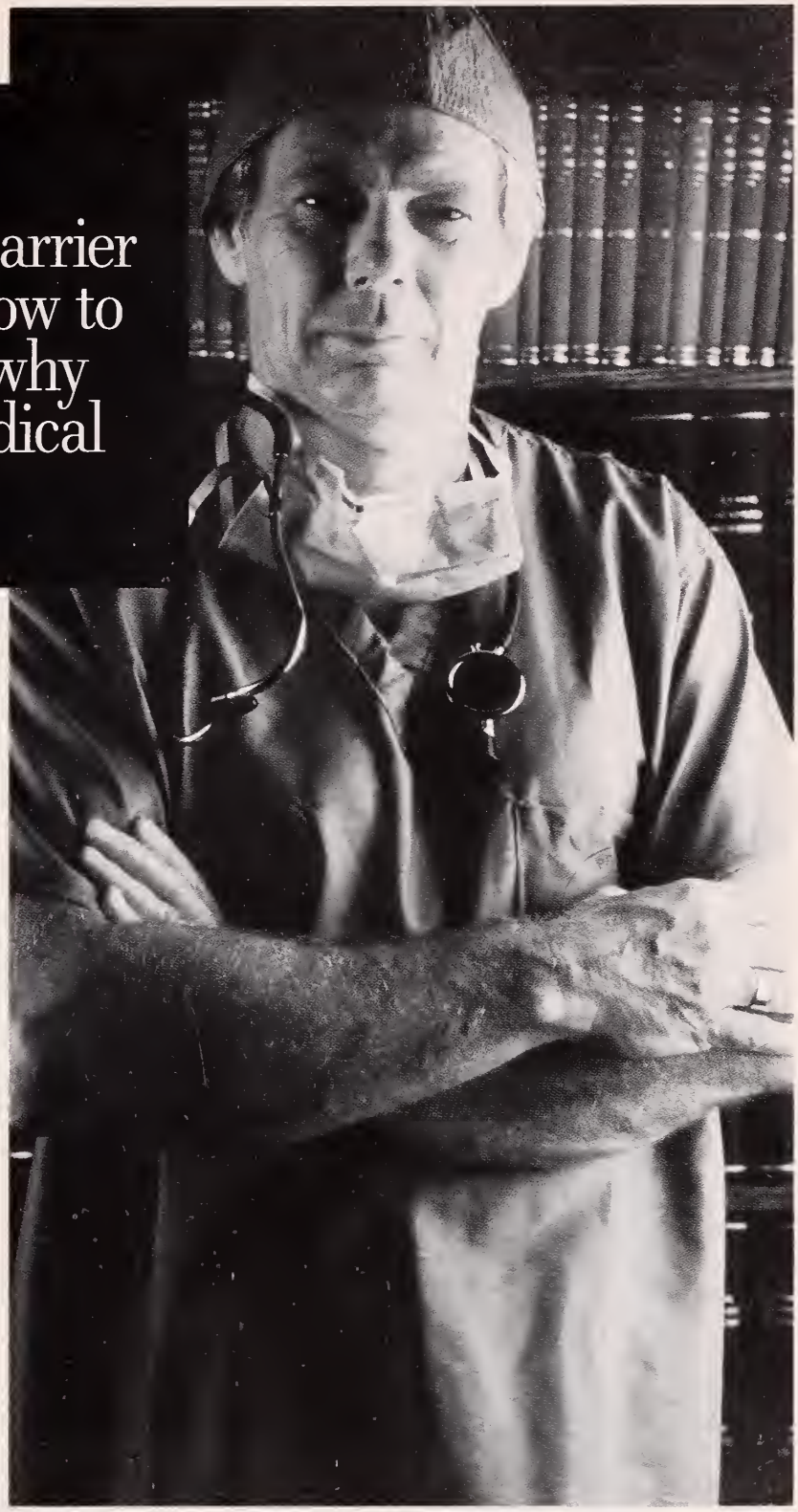

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Continued from page 28

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Medicare and the so-called excess charges

A public interest group supporting the enactment of mandatory Medicare assignment has charged in the press and in door-to-door solicitations that the elderly in Wisconsin last year were forced to pay $51 million in so-called excess charges to physicians who did not accept assignment. SMS staff have researched the group's claims and put together the following facts that may help physicians give their patients a more accurate picture of the Medicare situation in the state:

There is no such thing as "excess charges" in Medicare because the MAAC program limits what each physician may charge a Medicare patient. Because of MAACs, a Medicare patient pays discounted prices for physicians' services, regardless of whether his or her physician accepts assignment. A recent informal survey of ten clinics in the state found that while the average fee for an intermediate office visit was $53, the average MAAC was $38, and the Medicare-approved amount was $27. MAACs have been held to an average annual increase of less than 0.5% over the last five years, compared to average increases in the Consumer Price Index of 3.7% annually.

The $51 million cited by the group actually represents the amount between the Medicare-approved discount and the MAAC and is actually quite modest when compared to the total dollars spent in Wisconsin on Medicare Part B. In 1988, that figure came to $718 million for the state's 630,000 beneficiaries. In other words, these so-called excess charges made up only 7% of the total Medicare Part B bill in the state.

Groups supporting mandatory assignment argue that it would lower the cost of health care for senior citizens. But, according to data compiled by the SMS, mandatory assignment would have a minimal effect on elderly out-of-pocket costs. In 1988, the average Medicare beneficiary paid $75 for physician charges above the Medicare-approved discount, but he or she paid $368 in federally mandated copayments and deductibles for physicians' services. In addition the elderly must pay 100% of the cost for services not covered by Medicare such as annual physicals, flu shots, drugs, and long-term nursing home care. Mandatory assignment would affect only about 3% of the average senior citizen's out-of-pocket health care costs, which in 1988 were $2,394.

Watch your *Medigram* for further discussion of the inequities in the Medicare system and the likely effect of mandatory assignment on access to health care for the elderly living in rural areas.

Three tort bills introduced

Three bills have now been introduced to address the SMS's top legislative priority of placing a $250,000 cap on non-economic damages in medical malpractice actions.

Senate Bill 92, which is limited to the non-economic cap only, has been introduced for the SMS by the Senate Labor, Business, Insurance, Veterans' and Military Affairs Committee, chaired by Sen Jerome Van Sistine (D–Green Bay). In addition, the $250,000 cap has been placed in two bills requested by the Wisconsin Coalition for Civil Justice. The coalition's bills, Senate Bill 91 and Assembly Bill 150, were introduced respectively by Sen Van Sistine's committee and Rep Mary Hubler (D–Rice Lake). Assembly Bill 150 also has 60 co-authors.

The non-economic limit would apply to such items as pain and suffering, mental anguish and loss of society. Experience from other states has demonstrated that limits of this size can produce savings in medical liability premiums.

Public health

Progress in the early detection of breast cancer

Patrick L. Remington, MD, Madison

Breast cancer is the most common cancer among women in Wisconsin. In an effort to promote the early detection of breast cancer, various organizations have provided recommendations that encourage early breast cancer detection through routine self-examination, physician examination, and mammography. We analyzed data from the Wisconsin Division of Health to determine the effect of this campaign in Wisconsin.

Methods

Trends in the extent of breast cancer at the time of diagnosis were determined using data from the Wisconsin Cancer Reporting System (CRS) from 1980 to 1987.[1] Since 1980, physicians in Wisconsin have reported all diagnosed cases of breast cancer to the CRS at the Wisconsin Division of Health. For each cancer, the extent of the disease is also reported (*localized* means a tumor that appears to be confined entirely to the breast; *regional* means a tumor that has extended beyond the limits of the breast to the surrounding tissue or lymph nodes; and *distant* means a tumor that has spread to other parts of the body remote from the breast).

Trends in age-adjusted breast cancer mortality (as underlying cause) were determined using death certificate data from 1968 to 1987.[1] Because of variations in the mortality rate from year to year, five-year moving averages are plotted.

Dr Remington is a medical epidemiologist in the Chronic Disease Surveillance Unit, Section of Environmental and Chronic Disease Epidemiology, Wisconsin Division of Health. Reprint requests to: Patrick Remington, MD, Wisconsin Division of Health, 1 W Wilson St., Madison, WI 53701-0309. Copyright 1989 by the State Medical Society of Wisconsin.

Results

Breast cancer is being detected at an earlier stage in 1987 than in 1980. In 1980, about half of all breast cancer was localized to the breast at the time of diagnosis. By 1987, this had increased to almost two thirds (Fig 1). Similarly, in 1980, almost 10% of breast cancer had spread distantly at the time of diagnosis. By 1987, only about 5% had spread distantly at the time of diagnosis.

Breast cancer mortality rates in Wisconsin declined only about 6% over the past 15 years. The average five-year, age-adjusted mortality rate was about 30 per 100,000 women between 1968–1972. This declined to about 28 per 100,000 women by 1983–1987 (Fig 2).

Discussion

The data presented in this report convincingly demonstrate that breast cancer is detected in earlier stages today than just 5 years ago. From 1980 to 1987, the proportion of breast cancer diagnosed while localized to the breast showed a relative increase of almost a third (from 49% to 63%), and the proportion detected after having spread distantly showed a relative decline of about half (from 10% to 5%).

Breast cancer mortality rates have declined only slightly over the past 15 years in Wisconsin. It is possible that the earlier declines were due to improvements in the treatment of women with breast cancer. With women being diagnosed in earlier stages more recently, however, long-term survival rates will continue to improve. This improvement in survival should produce a decline in mortality from breast cancer in Wisconsin over the next decade. Evidence from prior epidemiologic studies demonstrate that reductions of mortality follow the implementation of breast cancer screening programs. A 1977 study, in Sweden, on the efficacy of mammography screening in lowering breast cancer mortality showed a 31% reduction in breast cancer mortality and a reduction of 25% in rates of stage II or greater breast cancers in the screening population of women 40 years old and older.[2]

Recommendations

The National Cancer Institute has formulated guidelines for physicians for the early detection of cancer based on the best statistical and clinical information.[3] Every effort has been made to develop guidelines which all relevant medical organizations could support and promote.* For the early detection of breast cancer, the National Cancer Institute recommends:

- That physicians should encourage their female patients in doing

Continued on page 34

Series coordinators

The Wisconsin Division of Health's Henry Anderson, MD, chief of the Section of Environmental and Chronic Disease Epidemiology, and Patrick Remington, MD, are coordinating this public health series for the *Wisconsin Medical Journal.* The division has begun a statewide Breast Cancer Control Program in cooperation with the National Cancer Institute (grant RO1-CA-46883). Dr Anderson is the principal investigator. For more information on this program or about breast cancer control, contact Judith Zvara at 608-266-1120. Drs Anderson and Remington welcome your comments on this and all subsequent reports.

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Continued from page 32

monthly self-examination of their breasts.

- That physicians be encouraged to include clinical breast examinations in the periodic examinations of all female patients.
- That, beginning at the age of 40, a mammogram should be encouraged every 1 to 2 years until the age of 50, after which it should become annual.

The term "guidelines" is used rather than "recommendations," because a physician considering a particular patient's background, medical history, and circumstances, may properly chose to make different recommendations. These guidelines are subject to change, as new scientific information becomes available.[5]

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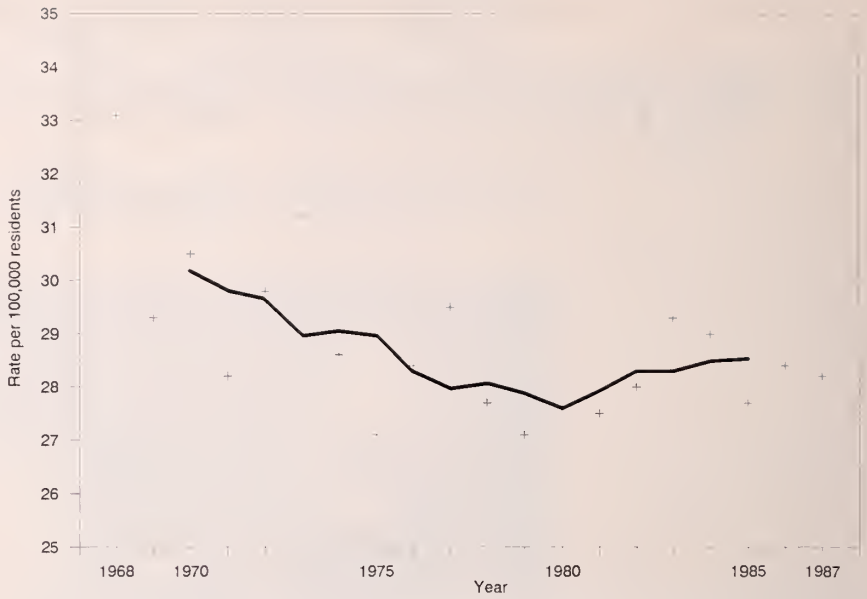

Fig 1.—Trends in breast cancer by the extent of disease. Data from the Cancer Reporting System.

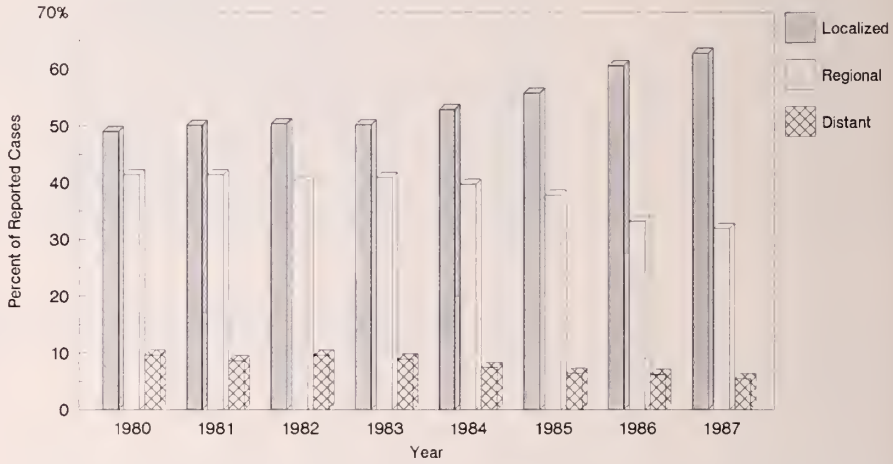

Fig 2.—Trends in breast cancer mortality in Wisconsin from 1968 to 1987. Data are age-adjusted to the 1970 US population. The solid line indicates the five-year moving average (eg, 1968–1972 is plotted at 1970, 1969–1973 at 1971, etc).

* The American Cancer Society recommends: 1) monthly self-examination of breasts by women 20 years of age and older as a habit of good health; 2) physical examination of the breasts, by a physician, every 3 years between the ages of 20 and 40, and once a year after 40; 3) a mammogram every year for asymptomatic women 50 and older; 4) a baseline mammogram for women between the ages of 35 and 39; and 5) mammography every 1 to 2 years for women between 40 and 49 years of age, depending on physical and mammographic findings.[4]

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1. Data on file, Lilly Research Laboratories

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AXID®

nizatidine capsules

Brief Summary

Consult the package literature for complete information.

Indications and Usage: Axid is indicated for up to eight weeks for the treatment of active duodenal ulcer. In most patients, the ulcer will heal within four weeks.

Axid is indicated for maintenance therapy for duodenal ulcer patients at a reduced dosage of 150 mg h.s. after healing of an active duodenal ulcer. The consequences of continuous therapy with Axid for longer than one year are not known.

Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General* — 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests — False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine.

Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system, therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

Loss prevention

Case report: brachial plexus injury with shoulder dystocia

Herbert F. Sandmire, MD
Green Bay

Shoulder dystocia is an obstetrical emergency requiring prompt action to minimize the risk to the fetus. It has also been described by one author as a physician risk.[1] The accuracy of that characterization is attested to by claims filed against Wisconsin physicians alleging negligence when brachial plexus birth related injuries occur. These claims have been difficult to defend and result in relatively large settlements or awards. A brief summary of one brachial plexus injury claim follows.

Clinical history

A 20-year-old woman in her first pregnancy had spontaneous onset of labor at 41½ weeks. Epidural anesthesia was provided at 9 cm dilation. Following a one-hour second stage of labor, a low forceps delivery resulted in the birth of a 9-lb, 10-oz male infant with an Apgar score of 6 at one and 9 at five minutes after birth. The obstetrician testified that after the delivery of the fetal head the application of the usual downward traction did not result in the delivery of the anterior shoulder. A woods rotation of the shoulders maneuver was begun and when the oblique diameter was reached, the anterior shoulder and the rest of the body was delivered easily. The shoulder dystocia was designated as moderate. A left Erbs palsy was diagnosed on the neonate.

The last station of the presenting part recorded in the labor record was 0 at the onset of the second stage one hour before delivery. The delivery record indicated low forceps. The obstetrician testified that the designation indicated the presenting vertex to be in the occipot anterior position and on the perineal floor.

Plaintiff's expert testimony

"There are only two areas (of which) I'm critical. One is undertaking what appears to me to have been a mid-forceps delivery after only one hour in the second stage of labor and in the absence of fetal distress. The second is exerting sufficient lateral traction on the head in the course of his disimpaction of the shoulder to cause a permanent brachial plexus injury and in the absence of being required to exert that degree of force by failure of his method to disimpact the shoulder."

A second expert testified that he had personally delivered 20,000 babies without a single instance of permanent brachial plexus injury. Additionally, he said that "the presence of a permanent plexus injury is evidence of negligence on the part of the delivering physician."

Defendant's expert testimony

There was no reason to dispute the designation of low in the delivery record as applied to the forceps delivery. The common practice of nurses, even in 1987, is to discontinue recording the station after moving the patient to the delivery room unless that patient has a protracted second stage.

Furthermore, a substantial percentage of babies with brachial plexus injury (some by Cesarean section) are not associated with shoulder dystocia, demonstrating the occurrence of this injury in the absence of excessive forces applied by the delivering physician. A large series on this subject reported by Gordon[1] and

Continued on page 38

AMA Awards

The Wisconsin physicians listed below recently earned AMA Physician's Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

January 1989

*Bersten, Stephen A., Madison
*Burton, Charlene G., Rhinelander
Edson, Alan C., West Allis
*Ghinazzi, Scott R., Wisconsin Rapids
Heimler, Ruth, Milwaukee
*Hendricks, Mark R., Manitowoc
*Herdrich, Gary M., West Bend
*Hoftiezer, James W., Manitowoc
*Ippel, Paul M., Chippewa Falls
*Johnson, Samuel B., Green Bay
*Kochar, Mahendr S., Milwaukee
*Komisar, Jeffrey M., Milwaukee
*Loewenstein, Paul W., Milwaukee
*Martin, Lynn T., La Crosse
*Mc Kenna, John E., Antigo
*Mc Wey, Patrick J., Wauwatosa
Olinger, Gordon N., Milwaukee
*Paulsen, Frederic L., Marshfield
*Scott, Robert J., Sheboygan
*Shenton, David W., La Crosse
*Sivertson, Sigurd E., Madison
*Stafl, Jaroslava, Milwaukee

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Continued from page 36
another by Hardy[2] were introduced into evidence to rebut the plaintiff's expert testimony.

The obstetrician applied the standard techniques in caring for his patient. It is unfortunate that not all birth injuries are preventable.

Decision

The Circuit Court jury found for the plaintiff, awarding approximately $450,000.

Comment

The failure to record the station of the presenting part in the second stage of labor was exploited by one of the plaintiff's experts in his allegation of a mid-forceps delivery. This, despite the delivery record, completed by both the nurse and the physician, indicating a low-forceps procedure. To prevent the above described exploitation, nurses and physicians must carefully document the last station just prior to delivery.

All reported series of shoulder dystocia complicating delivery include infants with brachial plexus injuries. Furthermore, many brachial plexus injuries occur in deliveries which are not complicated by shoulder dystocia; ie, without the application of excessive lateral force by the delivering physician. Negligence, therefore, should not be assumed solely on the presence of an injury and testimony on that basis should be discouraged.

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2. Gordon M, Rich H. Deutschberger J: The immediate and long-term outcome of obstetric birth trauma. *Am J Obstet-Gynecol* 1973;117:1.
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Special

The use of the laboratory: dollars and sense

Edwin L. Overholt, MD, La Crosse

Dr Overholt's paper "The use of the laboratory: dollars and sense" was presented at the first Arnold O. Beckman Conference sponsored by the American Association of Clinical Chemistry in September 1977. The presentation is being reproduced in the WMJ because of its historical significance and because Dr Overholt's observations remain pertinent today. According to Dr Overholt, few clinicians have adopted his approach and, now, time has run out.

Constraining the role of the laboratory in clinical care emphasizes the physician's priorities. Over the years, as a practitioner and teacher of clinical medicine, I have endeavored to challenge myself, house officers, and fellow staff to use the laboratory "for cause, not because."

If the clinician's highest priority is to serve his or her patient, our technical advances and escalating inflation mandate that patient care be tempered with an awareness of cost. A more prudent use of our laboratory armamentarium must be practiced. During 1975, 10% of the total medical service funds, or $12 billion, was spent for clinical laboratory studies. Moreover, this high technology industry is growing at the rate of 15% annually.[1] Overall health care costs total $180 billion, or approximately 9% of the gross national product. Hospitalization costs, which in 1950 were $3.7 billion, exceeded $68 billion in 1977.

Causes

The law of the marketplace—that consumer demand governs technological advance—is not directly operative in medicine. There are several reasons for our present dilemma.

- Overuse of laboratory testing is generated by the physician's zeal, compulsiveness, or insecurity in a desire to identify deviations from good health.
- The unprecedented rate of emergence of new medical information since World War II has generated a diverse array of sophisticated instruments and in turn an education gap between the practitioner and this technology. New tests often receive immediate acceptance without critical evaluation. This attitude developed during the early phase of the physician's training, too often tends to become a life-long pattern.
- Complete documentation as a measure of quality, as well as a defensive maneuver to blunt the malpractice crisis, has blended into the lifestyle of the physician. The most common causes of malpractice are, however, negligence and a failure to order laboratory tests and x-rays at the right times.[2] Ordering many tests is no protection against litigation. The timeliness and appropriateness of tests, not their number, are what count most.
- Third-party payment has removed the physician and patient from

Continued on page 40

Dr Overholt is director of medical education for the Gundersen Medical Foundation, Ltd. Reprint requests to: Edwin L. Overholt, MD, Gundersen Medical Foundation, Ltd, 1936 South Ave, La Crosse, WI 54601; telephone: 608-782-7300.
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Continued from page 38

direct conflict over cost. Direct out-of-pocket costs declined from 52% in 1965 to 33% in 1975, while the public share increased from 26% to 42%.

- There is a price-cost disparity directly related to hospital accounting that considers the clinical laboratory as a profit center to support deficit-producing services. Prohibitions against use restrictions have become an unspoken commitment. If these over-inflated laboratory charges are accepted as standard charges in a community, the charges for similar tests performed in a physician's office laboratory may in turn become more disproportionate to costs.
- Payment formulas have greatly influenced the practice of many physicians who believe they are no longer adequately reimbursed for their time. With enough tests, income can be kept at high level.

Physical exams

I support the recommendations of the National Council of Preventive Medicine.[3] Evaluations for men should be performed during the teenage years or early 20s, again around age 30, and every five years until age 50. Thereafter, every two years should be sufficient. For women, every two years after age 30 and yearly after age 50 should be appropriate. During this time frame, many patients will have developed a problem that requires more frequent evaluation. Also, many of my healthy patients desire yearly examinations and derive considerable satisfaction from being reassured that all is well. In these patients, the annual physical is an effective therapeutic act. I strive, however, to emphasize a more realistic approach in terms of the frequency of periodic examinations and the extent of laboratory tests. In the healthy patient, a battery of tests from our laboratory arsenal is wasteful. This is not action for cause, but because.

By replacing the more frequent annual physical, periodic health examinations will save time for the physician and patient and significantly curtail costs. Further savings will accrue from the limited use of laboratory services, ie, no chest film without symptoms of lower respiratory tract infections, an SMA–12/60 every five years, urinalysis every two or three years, and an ECG only if there are new cardiac problems. Thus, I obtain only a hemoglobin level and, in women, a Papanicolaou smear routinely on each periodic examination. The stool is checked for occult blood if the patient is over 40 years of age because of an increased risk of occult gastrointestinal pathology.

I have no difficulty in selling most of my patients on the use of limited laboratory studies. At each periodic examination at least $60 to $100 is saved by this approach. Indeed, patients are most appreciative, and the doctor-patient relationship is enhanced.

Limiting laboratory use

The outpatient with stable disease represents another challenge. Although these patients will receive more frequent examinations, they should receive only a few well-directed laboratory studies. Symptoms that signal a worsening condition will prompt more detailed laboratory evaluation. This overall streamlining of the use of the laboratory in the outpatient does not, in my opinion, detract from the quality of care.

Common routine studies for hospitalized patients include complete blood counts, urinalysis, roentgenograms, ECG (if over 40 years of age), and a chemistry profile of 12 to 20 or more tests. After a thorough history and physical examination, however, most of our patients have a recognizable problem that should prompt well-directed laboratory procedures for the confirmation of disease or its response to treatment—ie, problem oriented rather than process oriented. This should allow selection of appropriate laboratory tests under circumstances where the prevalence of a specific disease is much greater. The predictive value of selected tests will be much greater in this setting because positive tests will more likely be true positives.

After analysis of the initial laboratory tests of the hospitalized patient, a major challenge is to curtail their unnecessary repetition. They are often repeated more frequently than the illness warrants, or after the disease has stabilized or cleared. In the teaching hospital, tests tend to be ordered as a measure of caution in an environment abounding with laboratory facilities and experts. Such habitual ordering can lead to a stereotyped approach.

Teaching cost containment

How can our profession use the laboratory more efficiently? At the very least, our medical schools and teaching institutions must teach awareness of the cost, effectiveness, and limitations of laboratory tests. All postgraduate courses should stress prudent use of the laboratory, along with their emphasis on updating information on disease diagnosis and management. Clinical investigation protocols must continue, but the difference between patient care and the use of the laboratory for investigative studies must be recognized.

Of course, this will not occur unless our major teaching institutions bite the bullet. Faculty, medical students, and house staff must believe and practice cost containment. They must move from giving lip service to the idea to using it in the arena of their daily practice.

President Harry Truman emphasized that the buck stopped at his desk—and so it is with the physician's role in medical care. Our society has never distinguished itself in the area of resource allocation. Yet, our politicians are beginning to believe that without some change in financial incentives or governmental regulatory function, physicians are no more apt to limit medical expenditures than they are to correct geographic and

specialty maldistribution by themselves. Irrespective, the use of radiographic and laboratory studies, hospitalization, specialized services such as coronary care and ICU, as well as surgical procedures are directed by the physician. Whenever possible, we should moderate the costs of these services while not changing the quality by using common sense.

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BRIEF SUMMARY

CONTRAINDICATIONS
There are no known contraindications to the use of sucralfate.

PRECAUTIONS
Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS
Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE
There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION
The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

HOW SUPPLIED
CARAFATE (sucralfate) 1-gm tablets are supplied in bottles of 100 (NDC 0088-1712-47) and in Unit Dose Identification Paks of 100 (NDC 0088- 1712-49). Light pink scored oblong tablets are embossed with CARAFATE on one side and 1712 bracketed by C's on the other. Issued 1/87

Reference:
1. Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

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Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

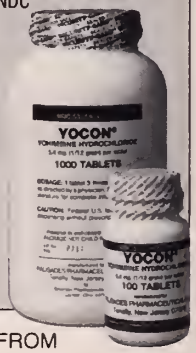
Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:
1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



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WMJ Reader survey results

Readers of the *Wisconsin Medical Journal* turn to the editorials more often than to any other section and would like to read more about legislative issues, according to a recent *WMJ* survey. The survey was attached as a false cover to the December 1988 issue, and 790 (11.3%) of the 7,000 physicians receiving *WMJ* returned the form.

The survey asked readers to score 14 regular features as "almost always read," "occasionally read," "rarely read," or "never read." An overall score for each feature was tabulated on these responses, and the features were ranked according to popularity. The most popular were: editorials, scientific articles, specials, the president's page, and socioeconomic articles (Table 1).

Reader interest in the *WMJ* is high: roughly half reported scanning the entire publication and reading articles of interest, and another quarter regularly check the table of contents for articles of interest.

To determine how the *WMJ* can be made more useful and interesting to Wisconsin's physicians, the readers were asked to rank a variety of topics of which they would like to see more. Legislative issues, public health issues, clinical technique and socioeconomics—all grouped very tightly—were overwhelming favorites. A

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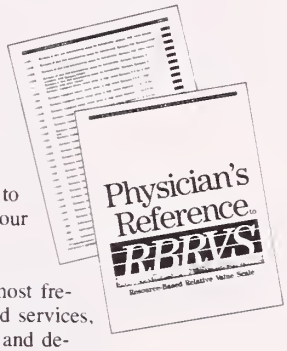

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Table 1.—*WMJ* features ranked from most often to least often read

Editorials
Scientific papers
Specials
President's page
Socioeconomic news
Letters
Soundings
Physician briefs
Voice of the SMS
Blue Book edition
Secretary's report
Loss prevention corner
Medicare Q&A
Organizational news

Table 2.—Readers' rating of *WMJ* scientific section

	Strong 1	2	3	Weak 4
Validity	20%	51%	14%	2%
Interest	14%	48%	21%	4%
Usefulness	10%	42%	27%	6%

second group of issues also found strong support: science, humor, SMS news, medical history, and human interest.

WMJ readers rated the scientific section as more valid than interesting, and more interesting than useful, but the section was rated highly for all three qualities by a majority of the respondents (Table 2).

Physicians in internal medicine comprise 16% of *WMJ* readership, followed by family practice (15%), surgery (8%), and pediatrics (7%). General practice, psychiatry and OBG each represent 4%. Twenty-five other specialties were reported by *WMJ* readers, each accounting for 2% or less of the total. This order of specialties mirrors that of the SMS membership except for general practice, which is the largest specialty in the SMS (21%).

More than half of the respondents practice in an urban area, and 76% practice in a group or clinic. Nearly 90% of the respondents are male, which is also true of SMS members, but the survey respondents are older than the general membership (Table 3).

Given the chance to make general comments about the *WMJ*, the readers expressed overwhelming approval of the new design, especially the covers. Most of the reader suggestions for improvement recommended more articles on the business of medicine, human interest topics, legislative activities, financial planning, and professional liability. Comments on the scientific section primarily called for more articles of interest to specific specialties and for representation of a greater number of specialties.

Table 3.—Ages of *WMJ* readers compared to SMS members

Age	*WMJ**	SMS
<30	2%	<1%
30–39	19%	32%
40–49	23%	30%
50–59	23%	23%
>60	24%	15%

* No age was reported by 8% of respondents.

SMS opposes proposal to lower drinking age

Three bills have been introduced to reduce Wisconsin's minimum drinking age from 21 to either 19 or 18—all are opposed by the SMS. Sen Jerome Van Sistine (D–Green Bay) and Rep Tim Carpenter (D–Milwaukee) have introduced Senate Bill 19 and Assembly Bill 19 which lower the minimum age to 19. Rep Carpenter has also introduced Assembly Bill 18 to lower the minimum age to 18. The bills are being promoted by the Tavern League of Wisconsin.

In opposing these bills, the SMS points to a Wisconsin Department of Transportation (DOT) finding that the alcohol-related accident rate for 19-year-old drivers dropped 50% last year, the second year of the 21 age law. Further, DOT found that 20-year-old drivers who were not exempted by the so-called grandfather provision (those who could not legally drink) had a drinking-driver accident rate that was 33% less than those 20-year-old drivers who could legally drink in the second year of the law. Persons who reached age 19 by Sept 1, 1986, were not affected by the law, so some 20-year-olds could legally drink during the past year. The SMS had primarily supported the age 21 law as a highway safety issue.

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SMS fights mandatory assignment bill

As predicted, a bill requiring Wisconsin physicians to accept Medicare assignment has been introduced in the state legislature. The Wisconsin Action Coalition and its national counterpart, Citizen Action, announced several months ago that they would mount a campaign in Wisconsin and other states for passage of mandatory assignment legislation. They gave their proposal the name "Medicare Overcharge Measure," or MOM. Under the proposal, physicians treating Medicare patients would be fined for failure to accept assignment (rather than tying assignment to licensure).

The SMS is providing information to legislators and the press, correcting some of the inaccuracies circulated about Medicare physician payment.

• Physicians in Wisconsin have already made significant efforts to reduce costs to low-income elderly for physicians' services. Last year, more than 60% of all claims for physicians' services were handled on an assigned basis. Virtually all physicians accept assignment on a case-by-case basis, and the PartnerCare program, established by the SMS and the Coalition of Wiscon-

Continued on page 49

Chiropractic scope of practice

Late last year, the Chiropractic Examining Board voted for an administrative rule which expands chiropractic scope of practice to include the use of galvanic therapy and therapeutic ultrasound. Currently, these two forms of therapy are listed as prohibited practices under the board's rules.

Under the administrative rules oversight process, referral to legislative standing committees is required before a rule may be promulgated. Last month, the Senate Agriculture, Health and Human Services Committee held a public hearing on the rule at the request of the SMS, the Wisconsin Physical Therapy Association and a number of chiropractors.

Michael Reineck, MD, an orthopedic surgeon from West Bend, represented SMS in testifying against the rule. Most of the testimony at the hearing, however, involved chiropractors battling each other on whether their scope of practice should be broadened to include these areas. Those against the rule suggested that chiropractic therapy was distinct from other therapies and wanted it to remain so.

At the conclusion of the hearing, the committee voted 7–0 to request the Chiropractic Examining Board to modify the rule to disclose the framework within which these therapies would be used, to specify training or certification requirements, and to specify limits in the use of the treatments. If the Chiropractic Examining Board refuses to modify the rule, the committee's vote will stand as an objection to the rule. Under that scenario, the Joint Committee for the Review of Administrative Rules must also object to the rule and a bill must pass both Houses to prevent promulgation of the rule.

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The uninsured

Nearly 75% of the respondents to a Gallup poll said the nation's employers should provide health insurance to all workers. On national health insurance: 46% said the government should cover the uninsured, while another 46% opposed such a system. Two thirds said they favor a voucher system, in which the consumer may buy a private insurance policy with Medicare funds.

Continued from page 48

sin Aging Groups, exists to assure that Medicare claims incurred by low-income elderly will be handled on assignment.

- Medicare prohibits the so-called over charging and sets a Maximum Allowable Actual Charge (MAAC) for each physician's services. The MAAC already represents a discount below that physician's normal fees, in most cases. The Medicare payment rate is a further discount below even the amount that Medicare allows the physician to charge. On assigned claims, the discount Medicare receives is as much as 40% to 50% of the normal charge.
- The discrepancy between rural and urban payment rates under Medicare is sizeable—a difference of 85% for some common services—and places a real hardship on rural Wisconsin physicians and Medicare beneficiaries. All Wisconsin physicians, rural and urban, are reimbursed substantially less for the same services than their counterparts in many other states, while Medicare beneficiaries pay the same Part B premiums everywhere. In other words, Wisconsin Medicare beneficiaries' premium dollars are actually going to subsidize higher Medicare payment rates in Massachusetts, California, Florida and many other states. The current Medicare payment system is unfair to Wisconsin physicians; mandatory assignment would simply freeze in place these inequities—and would have a severe negative impact on rural areas specially.

A call for photographs

The *Wisconsin Medical Journal* and the SMS Charitable, Educational, and Scientific Foundation are joining forces in an effort to build a photographic library of medicine in Wisconsin. Donations of current or historical photos relating to medicine—persons or places, equipment or events—are welcome and tax deductible. All donated photos will become the property of the Fort Crawford Medical Museum, which is owned and operated by the foundation, and may be used to illustrate future issues of the *Wisconsin Medical Journal.* Send your photos to: Thomas L. Adams, State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701-1109.

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Obituaries

Paul A. Pfarr, MD, 61, of Waupaca, died Jan 22, 1989, in Minneapolis, Minn. Born April 16, 1927, in Kenosha, Dr Pfarr graduated from St Louis University Medical School, St Louis, Mo. His internship was completed at St Joseph's Hospital, Denver, Colo. Dr Pfarr was the retired medical director at the Wisconsin Veterans Home in King, Wis. He was a member of the American Academy of Family Physicians, the Waupaca County Medical Society, the SMS, and the AMA. Surviving are six daughters; Regina Pfarr-Natz, of Sioux Falls, SD; Christina Hayden, of Lawrenceburg, Ind; Tisa Overman, of Green Bay; Stephanie Hoots, of Minooka, Ill; Jenny and Cecily, of Spokane, Wash; and four sons, David, of Frederick, Md; 1st Ltd James, of North Little Rock, Ark; Paul, of Bozeman, Mont, and Tom, of Frederick, Md.

Amarendra N. Chatterjee, MD, 53, of Kaukauna, died Jan 27, 1989, in Neenah. Dr Chatterjee was born March 1, 1935, in Bengal, India. He graduated from R.G. Kar Medical College in Calcutta. He pursued higher studies in England and was awarded fellowships from the Royal College of Surgeons (FRCS) from England and Edinburgh. He came to the United States and served as a resident at Kings Brook Jewish Medical Center in New York. He practiced surgery in Antigo for four years become becoming affiliated with the Kaukauna Community Hospital in 1977. Recently, Dr Chatterjee was involved in establishing a health care system for the elderly in Calcutta. He was a member of the Outagamie County Medical Society, the SMS, and the AMA. He is survived by his widow and two children.

Calvin J. Gillespie, MD, 58, of Muskego, died Feb 5, 1989, in Muskego. Born Dec 2, 1930, in Antigo, Dr Gillespie graduated from Marquette University School of Medicine and served his internship at Deaconess Hospital, Milwaukee. His residency was completed at St Joseph's Hospital in Milwaukee. He practiced in Muskego until his retirement in 1987. He was a member of the American College of Obstetricians and Gynecologists, the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, JoAnn; a daughter, Paula, and a son, Christopher.

Hilbert N. Dricken, MD, 79, of Milwaukee, died Feb 8, 1989, in Milwaukee. Born May 29, 1909, in Milwaukee, Dr Dricken graduated from Marquette University School of Medicine and completed his internship and residency at Milwaukee County General Hospital. Dr Dricken had practiced in the Milwaukee area until his retirement in 1984. He was a member of the American College of Surgeons, the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Alicemary; three daughters, Ellen, Elizabeth, and Marybeth; and three sons, Robert, Peter, and Tom.

Donel R. Sullivan, MD, 74, of Green Bay, died Feb 8, 1989, in Green Bay. Born May 19, 1914, in Boston, Dr Sullivan graduated from Wayne University School of Medicine, Detroit, and served his internship at Detroit Receiving Hospital in Michigan. His residency was completed at Leila Post Hospital, Battle Creek, Mich. He served in the US Navy from 1943 to 1946. Dr Sullivan was a member of the medical staff of St Vincent, Bellin Memorial, and St Mary's hospitals, and also was a member of the American Academy of Family Physicians. He was a member of the Brown County Medical Society, the SMS, and the AMA. Surviving are his widow, Jean; four sons, John, Paducah, Ken; Patrick, of Minneapolis; Thomas, Madison; Emmett, of Indianapolis, Ind; and five daughters, Mary Kelly, of St Paul; Martha Sullivan, of St Paul; Sarah Sullivan, of Cambridge, Mass; Kate Sullivan, of St Paul; and Ellen Sullivan, of Madison.

George E. Wahl, MD, 75, of Eau Claire, died Feb 22, 1989, in Eau Claire. Born Sept 20, 1913, in Eau Claire, Dr Wahl graduated from the University of Louisville School of Medicine in Kentucky, and served his internship at Hurley Hospital, Flint, Mich. Dr Wahl served in the US Army Air Force from 1942 to 1946. After his discharge he practiced medicine in Michigan until 1950 when he moved to Eau Claire. Dr Wahl was on the medical staff of Sacred Heart and Luther hospitals, and served two

Tributes to loved ones can help others

The memorial program of the Charitable, Educational and Scientific Foundation of the SMS offers physicians a unique opportunity to provide a living memorial to a loved one or friend through a gift to the foundation. A memorial contribution can provide financial aid to a needy medical student, help stimulate research on behalf of public health or aid in the preservation of Wisconsin's medical history. When a memorial gift is made to the foundation, the deceased person's family receives a special card with the name of the donor. For more information, contact the foundation staff at the SMS.

years as chief of staff at Lutheran Hospital. He retired in 1981. He was a member of the American Academy of Family Physicians, the Eau Claire-Dunn-Pepin County Medical Society, the SMS, and the AMA. Surviving are his widow, Kathryn; three sons, Eric, of Eau Claire; Carl and Edward, of Minneapolis; and a daughter, Betsey McCrory, of Rochester, New York.

Vanna Morosi Klees, MD, 63, of Fox Point, died Feb 9, 1989, in West Bend. Born Nov 30, 1915, in Rome, Italy, Dr Klees graduated from the University of Pisa Medical School, Italy, and served her internship and residency at Cook County Hospital, Chicago. She was formerly associated with the Milwaukee County Medical Complex and Community Memorial Hospital. Surviving are her husband, Bernard J.; two daughters, Sylvia and Karen Klees-Bidard; and a son, Eric.

Grace E. Schenkenberg, MD, 80, of Franksville, died Feb 26, 1989, in Racine. Born Feb 11, 1909, in Racine, Dr Schenkenberg graduated from Marquette University School of Medicine, Milwaukee, and served her internship at Milwaukee County General Hospital. She had practiced medicine in Racine and the surrounding area for more than 50 years. Dr Schenkenberg was a member of the Racine County Medical Society, the SMS, and the AMA. Surviving is a daughter, Julie Newton, of Clinton, NJ.

Louis Milson, MD, 90, of Green Bay, died March 2, 1989, in Green Bay. Born Aug 17, 1898, in Russia, Dr Milson graduated from Marquette University School of Medicine in Milwaukee, and served his internship at St Mary's Hospital in Green Bay. He also did postgraduate work at Harvard University and the University of Vienna. Dr Milson, founder of the Dousman Clinic in Green Bay, had practiced medicine from 1925 until his retirement in 1985. He was a member of the Brown County Medical Society, the SMS, and the AMA. Surviving are two sons, Dr Bertram and Dr Stuart, both of Green Bay.

Wilson James Troup, MD, 83, of Boyton Beach, Fla, died Fed 15, 1989, in Boyton Beach. Born Oct 5, 1905, in Council Bluffs, Iowa, Dr Troup graduated from the Creighton University Medical School in Omaha, Neb, and served his internship at Long Island College in Brooklyn, NY. His residency was completed at the Mayo Clinic in Rochester, Minn. Dr Troup was in the US Navy from 1943 to 1946, serving in England. He had been a member of the Green Bay Clinic from 1938 until 1979, when he retired. From 1968 to 1972, he made three trips to Haiti to perform eye surgery under the auspices of FOCUS, Inc. He was a member of the Brown County Medical Society, the SMS, and the AMA. Surviving are his widow, Jean; one daughter, Susan Julavits, of Cape Elizabeth, Maine; and two sons, Dr Charles and Wilson, both of Green Bay.

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Young guns

The number of gun shot wounds in children in major urban centers has risen by 300% since 1986, according to Barbara Barlow, MD, chief of pediatric surgery at Harlem Hospital Center in New York. Speaking at the American Academy of Pediatrics annual meeting, Dr Barlow said that gun shot wounds to children under 16 make up 4% of all pediatric trauma admissions nationally, and 10% in large inner cities.

Dr Barlow gave three reasons for the increase:

- There are more guns in homes. Most accidental shootings are done by other children.
- Children are being shot by stray bullets.
- Children are being shot intentionally by other children—often over drug deals.

Footing the bill

Funding for health care should not be cut—no matter what the cost—according to the respondents in a Gallup poll. According to the poll, three out of every four Americans would not vote for a candidate who wanted to cut Medicare and Medicaid funds, and 53% would accept tax increases to pay for health care.

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Family practice—Hospital sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful northcentral Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to and benefit package which is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Dr, Bloomington, MN 55435; ph 612-835-5123. 5–7/89

Milwaukee area. Attractive "lakes" community (population 10,000), located ½ hour west of Milwaukee. Join 14-physician multi-specialty group as second orthopedic surgeon. Must have an interest in back surgery. First-year guarantee with productivity formula and full benefits. Contact: Bob Suleski, 250 Regency Court, Waukesha, WI 53186; phone 1-800-338-7107 or 414-785-6500 (collect in Wisconsin). 5/89

West Bend, Wisconsin. Seeking full-time and part-time emergency department physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation, malpractice insurance provided and benefit package provided. Contact: Emergency Consultants, Inc., 2240 S. Airport Road, Room 36, Traverse City, MI 49684; 1-800-253-1795, or in Michigan, 1-800-632-3496. p5/89

Orthopedic surgeon, anesthesiologist. A progressive 131-bed, two hospital system is seeking board-certified or board-eligible physicians to establish practices in the Iron Mountain area of Michigan's beautiful Upper Peninsula. Located 100 miles directly north of Green Bay, Wisconsin. Dickinson County Hospitals have a medical staff of 45 full-time physicians and a total service area population of over 40,000. For more information contact: John Schon, President, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; ph 906-779-4502. 4–5/89

Internist—BC/BE. Very busy, young, solo internist seeking ambitious associate. Family oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs or subspecialists in internal medicine. Send CVs to Michael Sergi, MD, 14 N Main St, Fond du Lac, WI 54935. 5/89

Pediatric partner needed. Small town atmosphere, populous drawing area. National honors school. University town, 50 miles from Chicago. Economics, greatest per capita income in state. Malpractice, lowest rates in nation. Pediatric practice, 25 years, still expanding. Office is spacious suite in 4-year-old medical building, other specialties associates, lab and x-ray. Near all-service hospital with superior neonatal unit. Send CV and practice goals to: Thomas J. Covey, MD, FAAP, 2101 Comeford Rd, #3, Valparaiso, IN 46383. p5/89;6–7/89

Seymour Family Medicine looking for second BC/BE family physician for rapidly growing clinic practice in small town 20 minutes from Green Bay and Appleton hospitals. Four-member FP call coverage; on-site lab, x-ray, OP rehab in new facility. Salary guarantee, excellent benefits, practice management assured. Send CV or call Shirley Mielke, Seymour Family Medicine Clinic, 958 Foote St, Seymour, WI 54165; 414-833-2318. 5–7/89

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

Gastroenterologist-internist to take over successful established practice in Fond du Lac, July 1989. Will be the only gastroenterologist within a 20-mile radius, equivalence of approximately 100,000 population. Contact E. B. Horn, MD, 481 E Division St, Fond du Lac, WI 54935; ph 414-923-5555. p3–6/89

Family practice opportunities in a group setting. Located in a family oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, President & CEO, Clintonville Community Hospital, 35 North Anne St, Clintonville, WI 54929; ph 715-823-3121. p12/88;1–5/89

Physicians Exchange

continued

General surgeon (BC/BE) to join general surgeon and seven family practitioners. East Central Wisconsin, 100,000 service area, excellent 220-bed hospital. Vascular experience desirable. Competitive first year salary with incentive. Stockholder status available after one year. Contact: Robert Templin, Administrator, Associated Physicians of Fond du Lac, Ltd, 505 E. Division St, Fond du Lac, WI 54935. p4–6/89

Chief, radiology service. Board-certified/eligible radiologist unrestricted license in any state or District of Columbia; US citizen or permanent resident immigrant; English language proficiency required. 775-bed medical center that offers primary, extended care, and outpatient medical and psychiatry services. Salary to $94,000, depending on qualifications; Federal malpractice protection; 30 days paid vacation; relocation expenses. Tomah is a city of 7,500 in a predominantly rural area that offers affordable real estate, good schools. Conveniently located on I-90/94 midway between Milwaukee and Minneapolis. Call or write: R. S. Merrill, MD, Chief or Staff (11), VA Medical Center, Tomah, WI 54660; 608/372-1778. EO/AAE. 4–5/89

BC/BE Internist needed to join busy 13-doctor multi-specialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send curriculum vitae to inquiries to: Lake Region Clinic, PC, PO Box 1100, Devils Lake, ND 58301, Attn: Joel Rotvold or call collect at 701-662-2157 for further information. 3–5/89

Northern Wisconsin
Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

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• Orthopedic Surgeons • Internists
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UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7–12/88;1–6/89

Ophthalmologist. The Ashland Eye Clinic, SC, a busy, well-established medical-surgical practice in Ashland, Wisconsin, is seeking a general ophthalmologist. Competitive salary, bonus and excellent benefits. Partnership in one year if mutually compatible. Please send resume to Dr Ken Morrow, PO Box 233, Ashland, WI 54806, or telephone him or Dr John Doty during the day at 715-682-4515, or evenings after 7 pm at 715-682-8146 (Dr Morrow) or 715-682-9298 (Dr Doty). 4–6/89

Family practice (BC/BE) Northwest Missouri community offering the best of both worlds—lucrative practice and carefree country living. Modern clinic owned and managed by hospital. Guaranteed salary, plus benefits, paid insurance, CME allowance and all moving expenses. Back-up coverage. Scenic area provides abundant recreational activities and easy access to metropolitan Kansas City, Mo. Send CV to Carolyn Messner, Director Physician Services, College & Clarks Sts, Albany, MO 64402 or call 816-726-3941 collect. p4–6/89

Chief, rehabilitation medicine service. Board-certified/eligible physiatrist; unrestricted license in any state or District of Columbia; US citizen or permanent resident immigrant; English language proficiency required. 775-bed medical center that offers primary, extended care, and outpatient medical and psychiatry services. Salary to $94,000, depending on qualifications; Federal malpractice protection; 30 days paid vacation; relocation expenses. Tomah is a city of 7,500 in a predominantly rural area that offers affordable real estate, good schools. Conveniently located on I-90/94 midway between Milwaukee and Minneapolis. Call or write: R. S. Merrill, MD, Chief of Staff (11), VA Medical Center, Tomah, WI 54660; 608/372-1778. EO/AAE. 4–5/89

Madison, Wisconsin. Family practice physician to join our dynamic multi-specialty clinic. Guaranteed salary, profit sharing, excellent fringe benefit package. Send CV to L. C. Bernhardt, MD, Chairman, Recruiting Committee, Dean Medical Center, 1313 Fish Hatchery Rd, Madison, WI 53715. An Equal Opportunity/Affirmative Action Employer. 5–7/89

Beloit Clinic, SC, an expanding multi-specialty group in southern Wisconsin college town is seeking an orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J.F. Ruethling, Administrator, 1905 Huebbe Parkway, Beloit, WI 53511; 608-364-2200. 5–7/89

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-physician expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact E. T. Ayala, MD, Department of Internal Medicine, Sharpe Clinic, SC, 902 East Division St, Fond du Lac, WI 54935; ph 414-921-0560, collect. p3–8/89

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multi-specialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Stuart R. Lancer, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. c4;p5–7;8–10/89

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Eagle River—Great opportunity for two BC/BE family practice physicians to join well-established practice. Guaranteed annual income and future partnership available. For more information, send resume to Judy Harris, Recruiter, UW Office of Rural Health, 810 University Bay Dr, Madison, WI 53705 or call collect 608/263-7933. 1tfn/88

Physicians Exchange

continued

Career opportunity for qualified Emergency Room physician. Our group covers two hospital emergency rooms and an active walk-in clinic in southeastern Wisconsin. Full fringe benefit package and flexible scheduling offered. Interested parties contact John W. Linstroth, MD, 1201 Sherwood Lane, Caledonia, WI 53108; ph 414-835-7761. 8tfn/88

Lake Winnebago, Wisconsin area. Seeking director, full-time and part-time emergency physicians for low-volume, 60-bed hospital. Attractive compensation, full malpractice insurance coverage and benefit package available. Contact: Emergency Consultants, Inc., 2240 S. Airport Road, Room 36, Traverse City, MI 49684; 1-800-253-1795, or in Michigan, 1-800-632-3496. p5/89

General internist (BC/BE, with or without subspecialty interest) to join a busy three-internist group in Oshkosh, Wisconsin. Excellent educational and recreational facilities available for the entire family. Very attractive first year guarantee with production incentive, as well as a benefit program. Partnership offer after one year. Contact Dept 624 in care of the *Journal*. 4-5/89

Emergency medicine-Dubuque. Opening available for qualified individual to join incorporated group of three BE/BC emergency physicians. Unique and enjoyable practice, excellent compensation, complete career opportunities, and highly livable community. Write NET, PC, c/o Mercy Health Center, Emergency Department, Dubuque, IA 52001, or call Mark Singsank, MD; ph 319-589-9666. p3-5/89

Baraboo, Wisconsin. Emergency Department at St Clare Hospital seeks full- and part-time physicians. 8,000 annual visits. Hourly compensation. Pleasant area in which to live, near Devil's Lake and the Baraboo Hills. Also, Madison nearby. Contact: Ronald Levy, President, 707 14th St, Baraboo, WI 53913, or call 608-356-5561. 3-5/89

Northern Wisconsin
Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700. 12tfn/88

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

BC/BE Family practitioner needed to join busy 13-doctor multi-specialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send curriculum vitae or inquiries to: Lake Region Clinic, PC, PO Box 1100, Devils Lake, ND 58301, Attn: Joel Rotvold or call collect at 701-662-2157 for further information. 3-5/89

Internist (BC/BE) to join three board-certified internists in a 12-member multi-specialty group in a central Wisconsin community of 30,000 located on the Wisconsin River. Competitive salary and fringe benefits. Send CV to Administrator, Doctors' Clinic, SC, 1041 Hill St, Wisconsin Rapids, WI 54494; ph 715/423-0122. p4-6/89

General surgeon (BC or BE) to associate with a busy surgeon in general, vascular, and endoscopic practice serving two hospitals. Competitive salary and fringe benefits with early partnership. Send CV to Badri N. Gaju MD, FACS, 451 E. Brooklyn, Chilton, WI 53014. p4-6/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Family practitioner (BC/BE) wanted to join 12-physician multi-specialty group in central Wisconsin community of 30,000 located on the Wisconsin River. Competitive salary and fringe benefits. Send CV to Administrator, Doctors' Clinic, SC, 1041 Hill St, Wisconsin Rapids, WI 54494; ph 715/423-0122. p4-6/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Unsecured signature loans for physicians, $5,000 to $60,000. Use for any purpose including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments. Up to six years to repay. No prepayment penalties. Call 1-800-331-4952, Medi-Versal, Department 356. 5tfn/89

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Medical Meetings—Continuing Medical Education

June 16–18, 1989: Wisconsin Radiological Society, Pioneer Inn, Oshkosh. g2–5/89

JUNE 21–24, 1989: Wisconsin Academy of Family Physicians, Radisson Hotel, La Crosse g11tfn/88

July 20–22, 1989: Wisconsin Society of Obstetrics & Gynecology 1989 Annual Meeting, at Radisson Hotel, La Crosse. Info: WSOG, 850 Elm Grove Rd, Elm Grove, WI 53122. g1–7/89

July 27–29, 1989: Critical Care Update '89, sponsored by Berlin Hospital Association, at Heidel House Conference Center, Green Lake. Info: Berlin Hospital Association, Medical Conference 225 Memorial Dr, Berlin, WI 54923; ph 414/361-1313, ext 264. g4–7/89

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

FOR LISTING of other meetings see the July 1, 1988, issue of the *Journal of the American Medical Association.* Continuing Education Opportunities for Physicians for period August 1988 through December 1988.

SEPTEMBER 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. 12tfn/88

SEPTEMBER 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay, Wisconsin. g11tfn/88

October 13–15, 1989: Wisconsin Radiological Society Annual Meeting, Concourse Hotel, Madison. g2tfn/89

AMA

JUNE 18–22, 1989: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 3–6, 1989: Interim House of Delegates, Honolulu, HI.

JUNE 24–28, 1990: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 2–5, 1990: Interim House of Delegates, Orlando, FL.

Advertisers

Air Force Medicine 49
Armstrong Aviation 41
Army Reserve Medicine 39
Cambridge Health Economics Group ...45
Eli Lilly & Co.....35
Axid®
Hamilton Industries 8
HMO of Wisconsin 7
Marion Labs .....9 & 10
Cardizem®
Marion Labs .....43 & 44
Carafate®
Medical College of Wisconsin 37
Physician Resource Network
Medical Protective Company 29
Park Nicollet Medical Center 48
PBBS Equipment Corp. 51
Physicians Insurance Company of Wisconsin 47
Roche Laboratories .....1BC, BC
Limbitrol®
Shearson, Lehman & Hutton .....IFC
S&L Signal Company 45
SMS Services 4
St Luke's Hospital 3
StrategiCare 33
University of Wisconsin Hospital and Clinics 42

Orthopedic Conference:
New Perspectives in Pediatric Orthopedics, An Update

October 5–7, 1989

Landmark Resort, Egg Harbor, Wisconsin

Speakers:
- Alan L. Breed, MD, Madison, WI
- Alvin H. Crawford, MD, Cincinnati, OH
- Paul Esposito, MD, Omaha, NE
- John J. Hugus, MD, Marshfield, WI
- Walter W. Huurman, MD, Omaha, NE
- F. Stig Jacobsen, MD, Marshfield, WI
- David C. Mann, MD, Madison, WI
- H. A. Peterson, MD, Rochester, MN
- George W. Simons, MD, Milwaukee, WI
- John G. Thometz, MD, Milwaukee, WI
- Virginia Garnett-Wintersteen, MD, La Crosse, WI

Further information: Marshfield Clinic, Office of Medical Education, 1000 North Oak Ave, Marshfield, WI 54449; ph 715-387-5207. 5–8/89

State Medical Society of Wisconsin

Dates and locations of ANNUAL MEETINGS 1989–1993

All meetings will be held in Milwaukee at the Milwaukee Exposition and Convention Center and Arena (MECCA) and the new Hyatt Regency as the headquarters hotel, unless otherwise indicated.

1989—April 13–15
1990—April 26–28: Green Bay Convention Center, Embassy Suites
1991—April 18–20: Milwaukee Wyndham Hotel
1992—April 23–25
1993—April 15–17: La Crosse Convention Center, Radisson

Meetings days will be Thursday and Friday; the first session of the House of Delegates will convene on Thursday, the second and third on Friday. Scientific programming will be on Friday and Saturday.
Further information: Commission on Continuing Medical Education, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701. Local Telephone: 257-6781; toll-free in Wisconsin: 1-800-362-9080.

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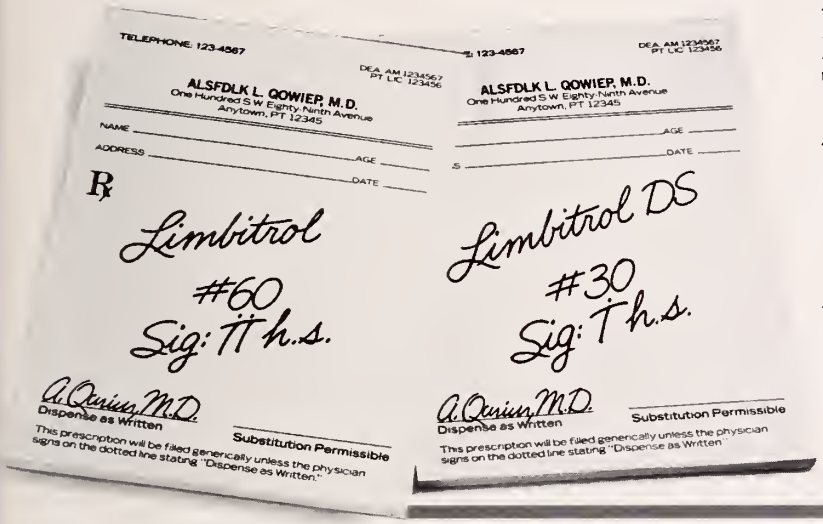
- 50% greater improvement with Limbitrol in the first week than with amitriptyline alone[2]



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References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Feighner JP, *et al: Psychopharmacology 61:*217-225, Mar 22, 1979.

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Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants; concomitant use with MAOIs or within 14 days of monoamine oxidase inhibitors (then initiate cautiously, gradually increasing dosage until optimal response is achieved); during acute recovery phase following myocardial infarction.

Warnings: Use with caution in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur when used with anticholinergics. Closely supervise cardiovascular patients. Arrhythmias, sinus tachycardia, prolongation of conduction time, myocardial infarction and stroke reported with tricyclic antidepressants, especially in high doses. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (*e.g.,* operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations. Consider possibility of pregnancy when instituting therapy.**

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: Use cautiously in patients with a history of seizures, in hyperthyroid patients, those on thyroid medication, patients with impaired renal or hepatic function. Because of suicidal ideation in depressed patients, do not permit easy access to large quantities of drug. Periodic liver function tests and blood counts recommended during prolonged treatment. Amitriptyline may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady-state concentrations of the tricyclic drugs. Use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Should not be taken during the nursing period or by children under 12. In elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.

Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods; milder after taking continuously at therapeutic levels for several months. Withdrawal symptoms also reported with abrupt amitriptyline discontinuation. Therefore, after extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

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- First-week reduction in somatic symptoms[1]

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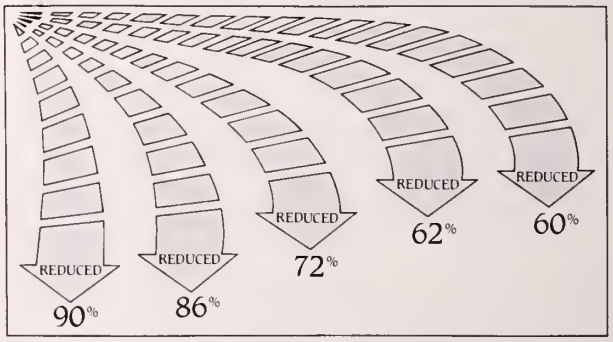

*Patients often presented with more than one somatic symptom.

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Official Publication of the State Medical Society of Wisconsin

Wisconsin Medical Journal

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Maternal mortality

June 1989
V. 88, NO. 6

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June 1989 Vol. 88 No. 6

Contents

Opinions

3 *President's page:* Is this what our forefathers had in mind?
by William L. Treacy, MD, Milwaukee

4 *Secretary's report:* HMOs, MDs, and the term 'hold harmless'
by Thomas L. Adams, Madison

Editorials

6 Once more, with apathy
by Wayne J. Boulanger, MD, Milwaukee

8 A tribute to Wayne J. Boulanger, MD
by Victor S. Falk, MD, Edgerton

8 Surrogate motherhood
by John P. Mullooly, MD, Milwaukee

10 The importance of parenting . . .
by Jeffrey H. Lamont, MD, Wausau

11 . . . and the medical family
by Thomas L. Adams, Madison

Letters

10 Professors seek studies on therapeutic prayer
by Michael Zimmerman and Jeffrey A. Witmer, Oberlin, Ohio

10 Medicine by dogma
by Vinoo Cameron, MD, Athens

12 *Soundings:* Three poems
by Marcia J. S. Richards, MD, Milwaukee

Scientific

19 The SMS Study Committee on Maternal Mortality Survey
by Gloria M. Halverson, MD, Waukesha

21 Maternal mortality in Wisconsin: 1971–1987
by Gloria M. Halverson, MD, Waukesha

23 Maternal mortality in Wisconsin: cerebral vascular accident
by Herbert F. Sandmire, MD, Green Bay

25 Maternal mortality in Wisconsin: infection
by E. Howard Theis, MD, Fond du Lac

26 Maternal mortality in Wisconsin: embolism
by Dennis Worthington, MD, Milwaukee

Socioeconomic

29 The Tax Reform Act of 1986: Section 89
by Sally Wencel, JD, SMS staff attorney

34 *Public health:* Trends in lung cancer mortality in Wisconsin
by Patrick L. Remington, MD, and Michael Fiore, MD, Madison

38 Legislation created to help Wisconsin's uninsured

Organizational

41 Adams explains peer review at Milwaukee conference

42 Physician briefs

44 Obituaries

45 Membership update

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Wisconsin Medical Journal

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State Medical Society of Wisconsin

Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

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President's page

Is this what our forefathers had in mind?

OUR PRESENT SYSTEM of civil justice and its problems in the medical malpractice arena, are major topics of discussion at medical leadership conferences, in medical organizations, in medical publications, and in the doctors' lounges in every state in the union. The complaints about the system range from exorbitant premiums to frivolous suits, the emotional trauma of proceedings surrounding such a suit, and the necessity of practicing defensive medicine to survive.

Not represented in these discussions, however, are the parties with real injuries injured by real medical negligence. I suspect that if these people were represented, they could make an even better case for changing our system of civil justice with regard to medical malpractice. When the talk turns to tort reform, legislators will listen to these people more carefully than they will listen to physicians.

To put it plainly and simply, our system of resolving disputes in medical malpractice, and of compensating truly injured parties, just isn't working. Let me give you just a few of the reasons:

- The great bulk of people injured by physician negligence are not being compensated at all. Danzon's study of hospital discharges, published in 1987, showed that in only 4% of the instances in which patients sustained compensable injuries in a hospital, did the patient receive any compensation at all. Our system is so expensive to operate that plaintiff's attorneys refuse to accept on a contingency basis, any case that doesn't have damages in the $30,000 to $50,000 range. Even if they won the cases, the plaintiff's attorneys would lose money. Is this justice for all?
- The compensation, when it does come, is too late. Insurance statistics show that the average time between medical negligence and payment is 5 years. During this time, the injured parties have to make do, and probably don't get the care they need because they can't afford it. Is this fair?
- The system is grossly inefficient. Depending on which study you cite, only between 15% and 30% of the premium dollars we pay go to injured parties. Many trial attorneys make regal incomes on this system. The game of "my expert witness is better and more prominent than yours"—with both attorneys flying off (probably first class) to gain expert depositions in Los Angeles, Miami, and wherever—is expensive, but necessary to win. How does this fit in our (and society's) efforts to control the cost of medical care?
- The few that do win, really win big. The multimillion-dollar awards splashed across our newspapers whets the appetite of a lot of people. Why not? The payoff is bigger than the state lottery. I wonder if we would be having the problems we have now if this publicity were not present.
- Our jury system is similar to a lottery. Lawyers on both sides refer to taking a case in front of a jury as "a rolling of the dice." Legal experts say that more jury cases are won and lost in the selection of a jury—picking the right kind of people to be the judges of fact—than in any other part of the trial. The facts in evidence are of much lesser importance. Somehow or other, I don't think this is exactly what our founding fathers had in mind when they designed the system.

William L. Treacy, MD

Our Blue Ribbon Task Force on Alternatives to the Tort System is looking hard at all this, and trying to determine how to change it to everyone's advantage. Thus far, at least, nothing is standing out as a replacement. The options under consideration all have problems such as questions of constitutionality, lack of experience of the new system in other states, and putting physicians through two trials, as in the old panel system.

We'll keep looking: It's much too important to physicians and society to do otherwise.

Secretary's report

HMOs, MDs, and the term 'hold harmless'

WISCONSIN PHYSICIANS are being called upon to understand and respond to yet another business administrative issue being created by the legislature at the behest of an agency, in this case the Office of the Commissioner of Insurance. This legislation creates new reserving requirements for HMOs and potentially locks some provider physicians into financial arrangements for which they would not otherwise contract. Physicians who contract with HMOs or IPAs will need to recognize and, in certain situations, affirmatively act in answer to this mandate.

The OCI developed this HMO financial standards legislation out of a perceived need to assure the financial stability of HMOs conducting business in this state. This Wisconsin legislation is really part of a national trend among state insurance commissioners to more closely regulate HMOs. This trend was sparked by the dissolution in other states of HMOs that left enrollees liable to physicians and other providers for payment of services that had been rendered under the HMO contract. The National Association of Insurance Commissioners' scrutiny of the HMO standards issue led to a report that made several recommendations aimed at achieving maximum protection of the public. Although the HMO financial stability issue was first discussed by a task force appointed by OCI on which the SMS had a representative, at almost the same time the NAIC reported its findings on the same subject. OCI's regulations incorporate the recommendations of both study groups.

Forget any previous ideas about the what the term *hold harmless* means. For the purposes of this explanation, hold harmless has nothing to do with the indemnity clause in an HMO contract. Hold harmless means, in this sense, an agreement by the physician, clinic, or the independent practice association with which the physician or clinic contracts, to hold the enrollee harmless for payment of services provided by the physician under the HMO contract. This agreement to hold enrollees harmless for payment of services does not change if an HMO becomes insolvent or otherwise breaches the contract it has with physicians. The best protection for enrollees, from OCI's perspective, is if all physicians and other providers are prohibited from seeking reimbursement from enrollees for claims owed by the HMO. The legislation in question makes it as difficult as possible for physicians to opt out of an otherwise automatic hold harmless provider system. More detailed reports of this legislation will appear in future issues of the *Medigram* and *WMJ*.

Why is this issue so important to OCI? Physicians, by contracting with HMOs, assume financial risk since—theoretically—physicians control the use of medical services provided to HMO enrollees. The logic of the hold harmless financial standard is that unless providers assume most of this risk, the HMO is not truly an HMO, and it should be treated instead as a health care indemnity insurance plan and be compelled to meet the higher premium dollar and compulsory surplus requirements.

The problem with this financial risk model is that it assumes that physicians have perfect market information and freedom to contract with only those HMOs that are financially stable. Physicians, however, often do not know the HMO's financial health. Nor are physicians often significantly involved in an HMO's day-to-day operations. Mere representation to the HMO's board of directors does not give physicians perfect or current information concerning the HMO's financial performance or stability. Moreover, physicians do not have the freedom to select only certain HMOs with which to participate because economic pressure often dictates affiliation with an HMO to keep a medical practice competitive. When it became apparent that law would inevitably be enacted which would limit physicians' freedom to contract for the hold harmless item, the SMS turned to looking at ways to require greater accountability of the HMO administration to its contracting providers. To this end, the SMS will publish the quarterly financial statements of Wisconsin HMOs and articles aimed at explaining the hold harmless law and how best to respond to it.

Thomas L. Adams

"The condition upon which God has given liberty to man is eternal vigilance; which condition if he break, servitude is at once the consequence of his crime, and the punishment of his guilt."

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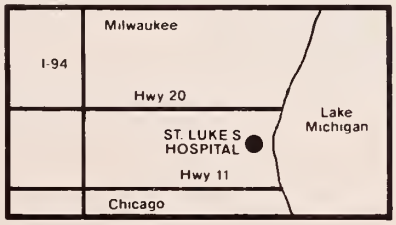

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Editorials

Once more, with apathy

WRITING THIS LAST editorial is for me somewhat like facing a band of hostile attackers with only one bullet left in my gun. Many of you will doubtless suggest that I should save it for myself, to which others would quickly add that if that were the case, I would probably just miss the mark one more time. Both groups, once again, I cheerfully ignore and press on.

Selecting just the right topic for this last editorial fling is difficult, since I have guessed wrong so often in the past—at least in predicting the effects of my efforts. Short pieces submitted as an after-thought have, at times, elicited more interest and reaction than well-researched, painstakingly presented arguments designed to awaken sleeping constituents and sway opinion.

As I look through more than a decade of my *Wisconsin Medical Journal* editorials, I am struck by the fact that while the practice of medicine has changed quite a lot, especially in the hospital, doctors have really stayed the same—and so have I.

We're still making the same mistakes.

We still don't read our mail. We still don't attend meetings on socio-economic subjects. We still don't pay attention to proposed legislation which might have a profound effect on our practices. We don't participate in community affairs, because we "don't have time." We still think that just being a good doctor is enough. And some of us still believe that, where the patient's health is concerned, we are the ones to decide on the appropriate treatment recommendations—not the government, not the insurance company, and not the medical news reporter.

That last belief is the biggest mistake of all. It hasn't been true for years.

Have you tried to admit a patient on the evening before an operation lately? Have you tried to keep him in the hospital beyond the authorized length of stay? Have you proposed a treatment that runs counter to the interpretation by the medical reporter of the latest *New England Journal of Medicine* pronouncement?

If you have, then you know what I'm talking about. We are no longer in control because we haven't changed; we remain apathetic.

Reminiscing over those old editorials brings back memories of recurring challenges and the realization that most of those editorials were written with one goal in mind: overcoming physician apathy. And if you think about it, our apathy has had a lot to do with where we are today—engaged in a major struggle to retain control of our practices.

True, to be apathetic is to be human, as any cleric who has tried to stimulate his dozing blob of a congregation on an early Sunday morning can attest, but doctors, according to malpractice attorneys and juries, aren't supposed to be quite as human as everyone else, so perhaps we must be a little less apathetic than others.

We need to become a lot less apathetic if we're going to have anything to say about how we want to practice in the future. Perhaps some of what has happened to us is for the greater good, but if so, it wasn't because of any effort on our part.

How do we jolt ourselves and our colleagues out of our apathy? I don't know. If I did, my editorials would have been more successful.

Carl Gustav Jung wrote: "There can be no transforming of darkness into light and of apathy into movement without emotion." Do we lack emotion? Undoubtedly. Can emotion be stimulated? Not until we are hit in our pocketbooks, unfortunately. And by then, it's too late—the law has been passed and the foothold lost.

Robert Hutchins was writing about democracy, but what he wrote applies to other freedoms as well: "The death of democracy is not likely to be an assassination from ambush. It will be a slow extinction from apathy, indifference and undernourishment."

If that is true, then we are indeed an endangered species. Let us hope that those who write on these pages in the future can help arrest the process of extinction.

—Wayne J. Boulanger, MD
editorial director

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A tribute to Wayne J. Boulanger, MD

It would probably be more appropriate to pay tribute to Wayne Boulanger, MD, with a bit of poetry, since he has long been the poet laureate of the *Journal*. However, since I don't know iambic pentameter from a rhymed couplet, I couldn't assume that degree of poetic license.

His final editorial appears in this issue—and I share his concerns. I also agree that short editorials with a punch line have attracted more attention and favorable comments than some of the longer, more scholarly offerings.

Wayne is completing 13 years of service to the *Wisconsin Medical Journal* as editorial director and a member of the Editorial Board. His own editorials have always been outstanding, and his judgment in accepting or rejecting those of the other editorial writers unquestioned. (Yes, he very prudently rejected some of mine—for which I am thankful.)

The Society, the *Journal* staff and I are grateful for Dr Boulanger's editorial contributions and his extensive efforts on behalf of organized medicine. We all hope that even without an official title, he will be inspired in the future to write (in poetry or otherwise) something for the *Journal*.

—Victor S. Falk, MD
medical editor emeritus

Surrogate motherhood

The current debate on surrogate motherhood demonstrates the utter confusion reigning in our society in regard to basic human values. The technological imperatives tend to blur basic moral obligations and commitment. Because something can be done, it does not follow that it should be done. While the body politic looks askance at the modern developments in reproductive technology, scientists go merrily on their way, applauded by the media for their scientific virtuosity.

Lost in this merry-go-round is the fact that life in all its forms is a gift and the child who is this gift is not so much looked upon as a gift, but as an object, a thing to be possessed or disposed of according to the whims or desires of the participants. A child coming into this world should have the guarantee of its own loving mother and father, conceived as a gift and assured that this mother and father will love him or her and provide a secure environment, plus nurturing and education.

Under the surrogacy arrangements, this is vitiated from its inception since the natural mother will not be the nurturing mother. We all have been exposed in recent years to trauma visited upon the participants in such arrangements. Who can foretell the psychological problems which will afflict these children of surrogate arrangements? If history tells us anything about this, the adoption stories of persons seeking their real parents should tell us something. The revulsion of moral, common sense people to surrogacy arrangements is but a sign of how wrong this modern development is and what it foretells for our already fragmented society. In advocating surrogacy, we are continuing to hasten society in a direction in which individual desire, narcissism, materialism, pleasure and self-interest will reign.

The Judicial Council of the AMA and the SMS Medicine, Religion and Ethics Committee have frowned upon surrogacy arrangements, and for good reason. While the legislature continues to debate these issues, it would be well for it to reflect upon the rights of the child who is a result of the arrangements. A child is a gift and is given in trust with all the conditions such a trust entails. When the norms of human nature are violated, nothing but trouble follows.

"God always forgives, man sometimes forgives, but nature never forgives."

—John P. Mullooly, MD
Milwaukee

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The importance of parenting . . .

I AM FINDING as time goes on that my son's growing up entails no fewer rites of passage for me than it does for him. One such step toward American manhood, which we recently shared, was the Pinewood Derby. This is an annual event in Cub Scouting in which boys are encouraged to transform four nails, four wheels, and a block of pine wood into a high-speed, gravity-powered racing machine.

The regulations governing the design of a "legal" vehicle are very specific and strictly enforced. Everything from weight and its attachment, to linear dimensions and the type of lubrication, are precisely prescribed. The regulations serve to emphasize the importance of time and craftsmanship invested in a project. A stated goal of the Pinewood Derby program is for a Cub Scout and his father, by preparing a car for the Pinewood Derby, will work together and strengthen their relationship.

Jeff and I had a lot of fun building his car. He enjoyed running the electric drill which we used to spin the axle nails during polishing. He enjoyed using his very own hammer to tap the axle nails into place. He particularly enjoyed choosing the color (a friendly, benevolent shade of black). After some discussion, we decided that the modification of his car to accommodate one of his G.I. Joe figures was probably not a very good idea.

All in all, we had a good time together: We both got an education as to the fine points of pinewood race car design, and we ultimately built a pretty respectable car. Jeff had a ball on race day, and I have to admit that I got a thrill out of seeing Jeff race the car we built. It was pretty obvious that a lot of other Cub Scouts and their fathers shared our feelings that day.

For some other boys, however, it was a different story. These boys came from single-parent homes. Their mothers have all they can do to hold down jobs and provide the basic necessities of family life for themselves and their children. A lot of these boys fielded cars which were not particularly neatly finished or fast-running. I suspect that few, if any, of the mothers of these boys possessed the skills necessary to help their sons turn out first-rate cars. What these mothers lacked, instead—if overheard conversations can be trusted—was access to tools, time and money. I overheard one mother apologize to her son for not being able to help him do better in his race. Another mother, whom I know from the hospital, shrugged her shoulders and said, "I did the best for him that I could on this, and he knows that." She seemed to feel, however, that she had let her son down—again.

It dawned on me that, rules and specifications notwithstanding, each of the three winning cars last weekend had an advantage built into it that might in this day and age be considered by some to be unfair. Each winning car was built by a boy who had not just a father, but a Dad.

—Jeffrey H. Lamont, MD
Wausau

Professors seek studies on therapeutic prayer

TO THE EDITOR: We are involved in a study of the therapeutic effects of intercessory prayer and are interested in hearing from anyone who has conducted such work. If you have carried out such a study but have never published the results, could you please contact us? If you have not personally been involved in such a study, but know people who have would you please share their names and addresses with us? Thank you for your cooperation.

Write to: Oberlin College, Oberlin, OH 44074, or call Dr Zimmerman at 216-775-8517 or 216-775-8315, or Dr Witmer at 216-775-8381 or 216-775-8380.

—Michael Zimmerman
professor of biology
—Jeffrey A. Witmer
assistant professor of mathematics

Medicine by dogma

TO THE EDITOR: Just to shake up some of us physicians who have learned to practice medicine by dogma, I'd like to pass along a little medical history of an 88-year-old patient of mine who happens to have a blood cholesterol of 317 mg per cent and triglycerides of 381 (fasting).

Mary is very active in the community, excellent in mind, an avid card player (considered a shark among the

. . . and the medical family

IN READING this month's editorials prior to publication, I was struck by an underlying message in Dr Jeffrey Lamont's editorial on family relationships.

We are beginning to see, as Dr JD Kabler noted last year (*WMJ* 1988; 87(11):3–4), a decline in the number of young people applying for admission to the nation's medical schools. We are also told that interest by young people in the allied health fields—nursing, medical technology, etc—is also waning.

If you thumb through the membership rosters of the SMS and other state medical associations, you would be amazed at how many medical families you'd find. Historically, there has been a very high number of children of physicians who choose to follow their father, mother, or in some instances both parents, into the practice of medicine.

Frequently, at county medical society meetings, I hear many of you discussing changes in the practice of medicine. The changes that are discussed are nearly always negative: too much review, managed care and precertification, too high a cost for liability insurance, etc—you know the list. Probably 99% of physicians agree, and justifiably so, with these sentiments.

At the very same meetings, however, you also learn about the latest technological advances, the satisfaction of the successful resolution of a difficult diagnosis, and the enthusiasm of young physicians for the profession.

When you look at the demographics, the need for large numbers of qualified physicians will greatly escalate by the year 2000 until around 2040. Physicians who will be in practice then are making their decision to become physicians now.

The medical profession has always attracted its fair share of the best and the brightest. It can continue to do so only of those of you in practice today talk of the satisfaction of healing. Yes, the problems facing the profession are great. The SMS and the AMA are in the middle of the fray and with your help will continue to prevail on many of the issues.

So like the boy who built the winning car with help from his dad, remember that your sons and daughters continue to choose the healing profession. Remember the positives, the caring, the teaching, and the quality of life. Young ears are listening. They care what you think.

Medicina nusquam non est.

—Thomas L. Adams
SMS secretary and
general manager

---

local residents). She has gleaming arcus senilis bilaterally. Blood pressure is 136/80. Mary's favorite foods include pork chops and headcheese. She loves beer mixed with raw egg and sugar, and enjoys wildcat (raw hamburger and onions) and sausage.

Such a patient inspires sobering thoughts in some of us physicians who, for the sake of dogma, drag every patient with high cholesterol, high LDL and low HDL through the mill. Imagine practicing medicine by computer. Needless to say, seasoned as I am in dealing with some of these tough old patients, Mary was advised to continue with her present diet and regimen, enjoy life, and more than likely she will die of natural causes (ie, acute myocardial infarction).

—Vinoo Cameron, MD
Athens

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It's not the humidity, it's the heat

Researchers at the Environmental Protection Agency have discovered that ultrasonic humidifiers can fill household air with tiny particles of minerals and pieces of microorganisms which may cause allergies or illness, according to a recent report in *The New York Times*. Many people have purchased the machines over the past five years because they are quieter, more energy-efficient, and effective moisturizers than cool-mist humidifiers.

Soundings

Three poems

Marcia J.S. Richards, MD
Milwaukee

Reflections on being sued

Make me not responsible for
your life,
Saddle me not with God-like power,
Rather, accept my human efforts
on your behalf.
And please understand
That neither I,
Nor the technology which I direct
Are always predictable or perfect.
Lives may be saved,
Death delayed,
For others suffering relieved.
Sometimes no benefit is derived,
And sadly even harm sustained.
Skilled minds and machines
Cannot mandate my deepest goals
for you,
(Lord knows I wish I could).
As our eyes now meet
And hopefully our souls commune,
We both need to accept our
human limitations,
As we together venture on this
path uncertain.

Professional distance

Today again, a patient's plight deeply touched me,
And internally discharged emotions not felt for some time.
My heart whimpered,
I was as helpless as the one for whom I cared.

Many months had passed, during which I had administered tenderly,
But with learned professional distance.
Fortunately my patients felt a sympathetic resonance,
Of which my own soul was not consciously aware.

Internally weeping and saddened,
I lay awake in human isolation,
Experiencing pain and anguish for my patient,
And for his family.

I am not able to easily share this periodic helplessness,
Either with my peers, or with those for whom I grieve.
Such openness, I fear,
Might be misinterpreted as personal incompetence for effective patient care.

The night passed.
Sun filtered through the window
Warming my blankets
And removing the chill in the air.

I then recognized my night's experience as a gift,
Which confirmed my human fitness
To be allowed the privilege of caring for another.
Periodic personal pain, prompted by a patient, provides such reaffirmation.

I got up,
Physically tired,
Strangely both emotionally drained and recharged,
And went to work.

Patient admiration

I wonder with respect and empathy
As the gray scale image
Forcefully confirms
The fragility of human life.
Tremors and after-shocks are
produced
That redefine with revolutionary
speed
Life's goals and values.

Words are listened to more
carefully,
Emotions are intensified,
Relationships become more
meaningful or empty.

Continuously amazed am I,
For rarely does a man's soul topple.
Instead the swaying stops,
Revealing their internal strength,
Often not fully recognized
Until challenged at this moment.

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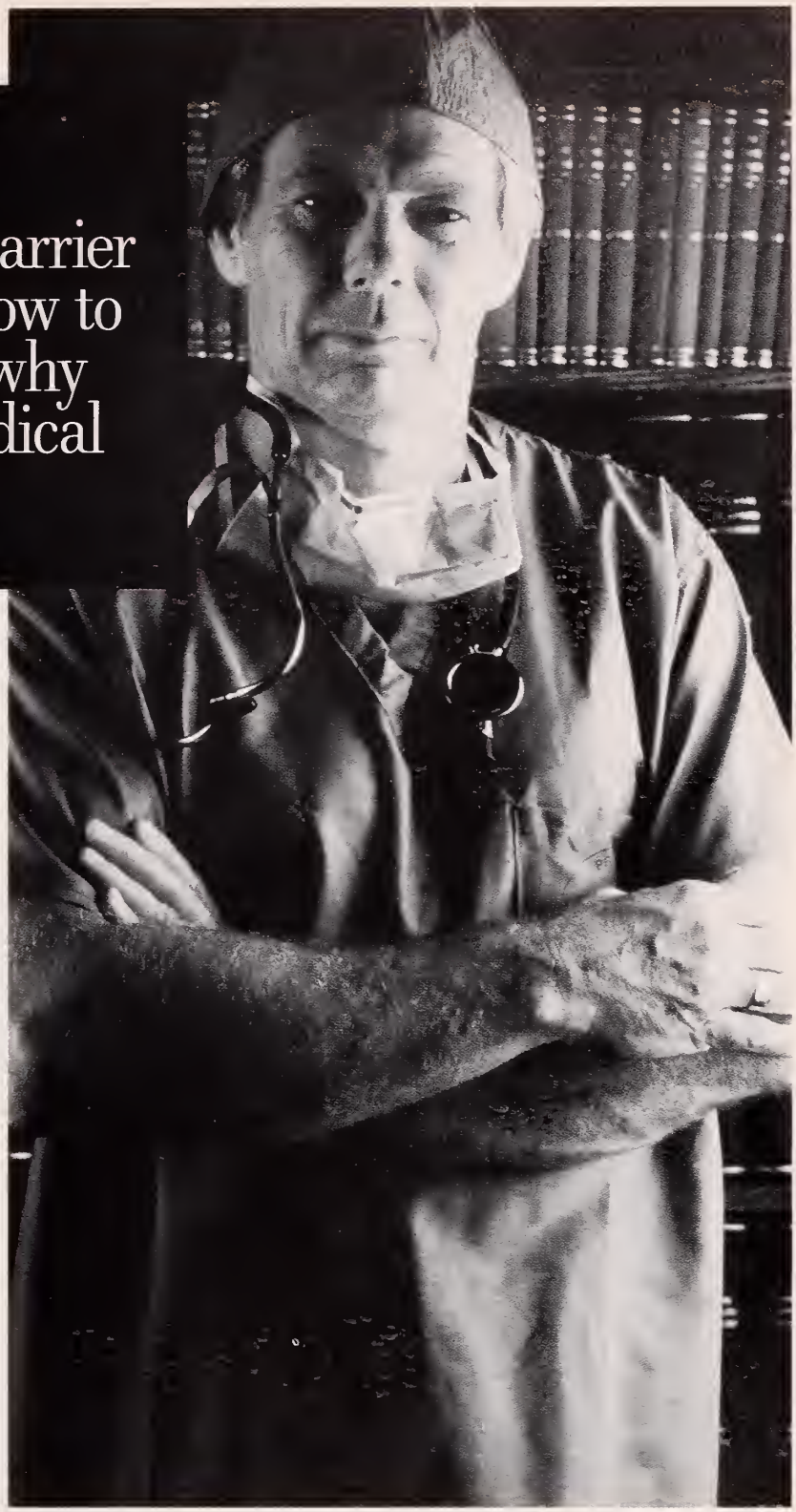

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Continued from page 14

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Indications and Usage: Axid is indicated for up to eight weeks for the treatment of active duodenal ulcer. In most patients, the ulcer will heal within four weeks.

Axid is indicated for maintenance therapy for duodenal ulcer patients at a reduced dosage of 150 mg h.s. after healing of an active duodenal ulcer. The consequences of continuous therapy with Axid for longer than one year are not known.

Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General* — 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests — False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine.

Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,300 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

The SMS Study Committee on Maternal Mortality Survey

Gloria M. Halverson, MD, Waukesha

MATERNAL MORTALITY rates have decreased significantly during the past 50 years with advances in obstetric care. The first statistics for Wisconsin showed that in 1934–1937, there were 382 maternal deaths for each 100,000 live births. It was at this time that the medical profession in the United States began to take a close look at maternal mortality. In 1931, the New York Academy of Medicine, while evaluating the national death rate of 619 women per 100,000 live births (2,041 deaths occurred in New York City alone during the preceding three years), caused an uproar by decrying, among other things, the increased use of anesthesia and operative deliveries as factors in this problem; they were appalled at increases in caesarean births to 2.5%.[1]

The SMS Study Committee on Maternal Mortality Survey officially began its studies in 1953 after five years of planning. It was then, as it is today, a subcommittee of the SMS Committee on Maternal and Child Health and works in close association with the Wisconsin Department of Health and Social Services. The original committee members were:

Thomas Leonard, MD, Madison (chair)
John Harris, MD, Madison
George Kilkenny, MD, Milwaukee
Alice Watts, MD, Milwaukee
Frederick Hofmeister, MD, Milwaukee
Richard Sanderson, MD, Beloit
E.D. Wilkenson, MD, West Allis.

Participating with them was Amy Louise Hunter, MD, director of the State Division of Maternal and Child Health.[2]

The objectives of the Study Committee on Maternal Mortality Survey were to define trends and examine factors of responsibility and preventability of death and to help lower maternal mortality rates through evaluation and dissemination of this information.

Over the life of this committee, maternal mortality has declined from 45 per 100,000 live births in 1953[3] to an average of 9.7 per 100,00 live births in the last three years. (The accompanying article will discuss the

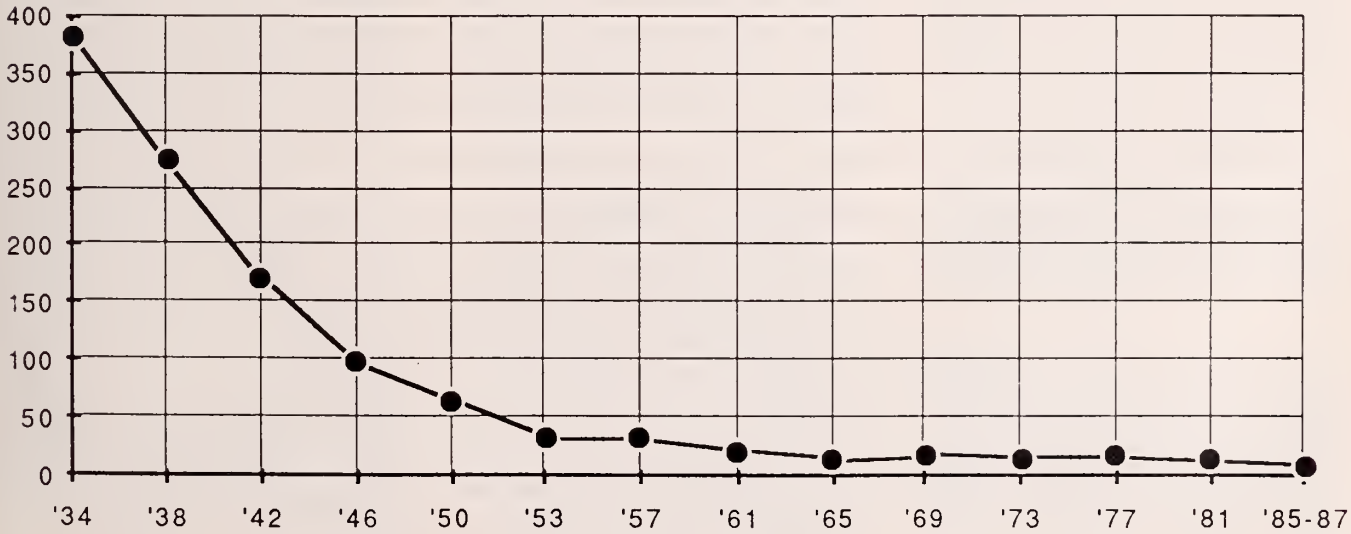

Fig 1—Fifty-three years of maternal mortality in Wisconsin; crude rate per 100,000 live births.

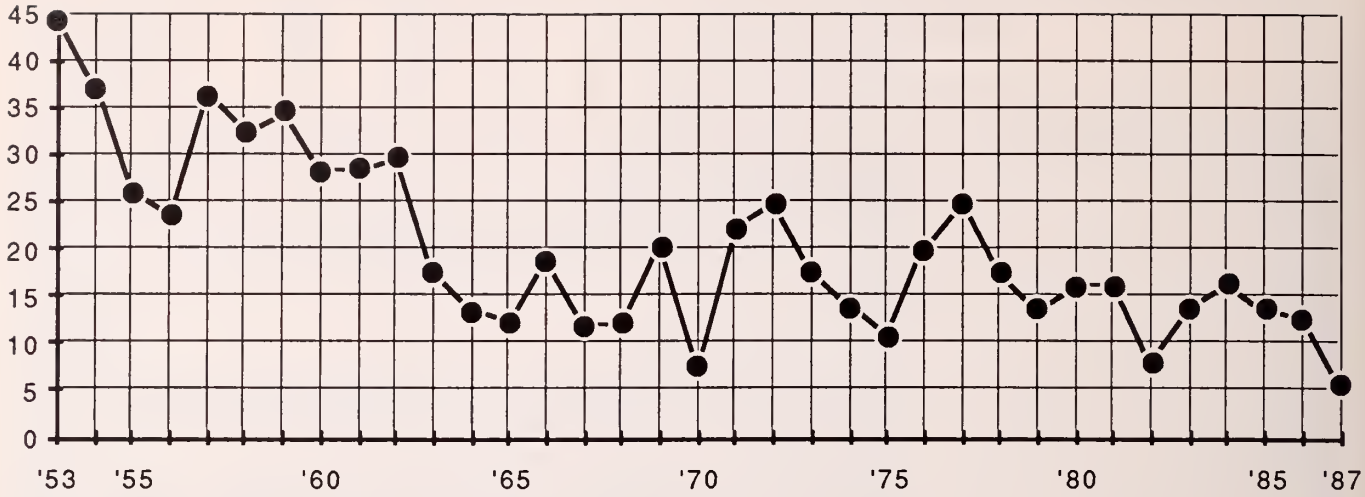

Fig 2—Number of maternal deaths per 100,000 live births in Wisconsin (crude rate) from 1953 to 1987.

latest statistics in more detail.) The figures used here represent raw rates, since no breakdown of obstetric *v* non-obstetric deaths is available in the earlier statistics for comparison.

Fig 1 shows the maternal mortality rate in Wisconsin, from the earliest record in 1934 through 1987. Fig 2 shows maternal mortality in greater detail from the formation of the state study committee, to the present.

Considering this marked decline in the maternal death rate, is the committee still necessary? Absolutely. The US Public Health Service has set a goal of maternal mortality not to exceed 5 per 100,000 by the year 1990.[4] It is only through the availability of accurate and complete data on maternal mortality that the development of strategies to reduce mortality rates may be facilitated.

This is not just the job of the maternal mortality committee, however. Physicians and other health care providers can help assure that these data are accurately collected and analyzed by accurately filling out the death certificate, which is the main source for identifying these cases. Four special investigations in the United States have found that vital statistics mistakenly classify 17% to 73% of maternal deaths as non-maternal.[4] In Wisconsin, the official maternal and child statistics are frequently found to be invalid regarding maternal mortality because of under-reporting. These statistics can only be as accurate as the information supplied on the death certificate.

In most states, maternal mortality committees augment their review of death certificates with clinical information obtained through an informal network of participating physicians. This is also true in Wisconsin. Accurate investigation can be done by making committee members aware of maternal deaths that have occurred. Current committee members are:

Gloria M. Halverson, MD, Waukesha (chair)
John E. Inman, MD, Monroe (vice chair)
Everett A. Beguin, MD, LaCrosse
Perry A. Henderson, MD, Madison
Robert J. Jaeger, MD, Stevens Point
Dan F. Johnson, MD, Eau Claire
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Herbert F. Sandmire, MD, Green Bay
Walter Schwartz, MD, Wauwatosa
Dorothy Skye, MD, Rhinelander
E. Howard Theis, MD, Fond du Lac
Dennis Worthington, MD, Milwaukee.

Special invitees from the Section of Maternal and Child Health, Division of Health, are Anita Grand, RN, and Murray Katcher, PhD.

All interviews and investigations are done by committee members. The cases are coded by number and are discussed without reference to the patients, hospitals, or physicians involved. Reviews are done for educational purposes only, and no minutes of the discussions are kept. In addition, Wisconsin state statutes protect patient confidentiality. Therefore, there need be no concern regarding use of the committee's deliberations in litigation.

It is hoped this background on the history of this committee and its functioning will help physicians continue to work toward the goal of optimal health care for all pregnant women in Wisconsin.

Dr Halverson is chair of the Study Committee on Maternal Mortality Survey. Reprint requests to: Gloria M. Halverson, MD, WomenCare, Brooktown Village, 210 Regency Court, Waukesha, WI 53186. Copyright 1989 by the State Medical Society of Wisconsin.

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4. MMWR: Maternal Mortality: Pilot surveillance in seven states. *JAMA* 1986;184–185.

Immunization schedule

The newly revised "Recommended Immunization Schedule for Children" is now available from the American Academy of Family Physicians in two forms. The first is a patient record card that family physicians can give to parents when a child's immunizations are begun. The second is a smaller version of the new schedule printed on pressure-sensitive adhesive stock to be affixed to the patient's chart. This form will help physicians comply with the record-keeping requirements of the National Child Vaccine Injury Compensation Act.

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SMS has new FAX number

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Maternal mortality in Wisconsin: 1971–1987

Gloria M. Halverson, MD, Waukesha

THE STUDY OF MATERNAL mortality provides an opportunity to examine trends that may reflect the quality of obstetric services and help define societal issues affecting pregnancy. Changes resulting from this knowledge may ultimately improve the safety of childbearing. The SMS Study Committee on Maternal Mortality Survey, therefore, conducted a statistical review of maternal mortality in Wisconsin from 1971 to 1987.

Materials and methods

Several factors contributed to the selection of this time period for review. First, ICDM coding numbers have been changed and required review and reclassification to make older data computer compatible. In addition, a national Maternal Mortality Collaborative has been established,[1] and it was felt that data collected in the state should be compatible with national trends. Third, since 1970, only a small part of the data collected have been published, and the committee defines part of its purpose as sharing this information for educational purposes.

For this study, the causes of death have been classified or reclassified according to the codes given in the *International Classification of Diseases*, ninth revision, Clinical Modification (ICD-9-CM). The cause of death is determined by review of the case by the committee (eg, hemorrhage, pulmonary embolism) and may not necessarily correlate with the death certificate (eg, cardiopulmonary arrest). The following definitions were used:

- Maternal mortality—the number of maternal deaths per 100,000 live births in Wisconsin.
- Direct obstetric death—death due to a complication of pregnancy, labor, or delivery, or its management.
- Indirect obstetric death—death in which pregnancy exacerbated a pre-existing health condition. This includes diseases such as collagen vascular disease, vascular disease, cyanotic heart disease, and asthma.
- Non-maternal death—death within 42 days of pregnancy that is considered accidental or incidental. Included in this category are deaths from motor vehicle accidents, murders, suicides, and drug overdoses.
- Deaths with abortive outcomes—death related to abortion (spontaneous or induced) and ectopic pregnancy.

Results

During the study period of 1971 to 1987, there were 184 maternal deaths. Direct maternal deaths numbered 120 (17 abortive outcome and 103 non-abortive outcome), and indirect deaths totalled 35. There were

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Table 1.—Causes of maternal mortality

Cause of death	No.
Maternal—Direct nonabortive	Total = 103
Embolism	34
Pulmonary	18
Amniotic fluid	15
Air	1
Hemorrhage	20
Cerebrovascular accident	16
Toxemia	10
Infection	10
Anesthetic death	7
Cardiomyopathy	6
Maternal—Indirect	Total = 35
Cardiovascular	11
Infection	9
Other	15
Abortive outcome	Total = 17
Abortion	8
Ectopic pregnancy	9
Nonmaternal (injury)	27
Unknown	1

27 non-maternal deaths, and one death that could not be classified. The maternal mortality ratios are shown in Fig 1 (non-maternal deaths are excluded). The major causes of death within each category are further broken down in Table 1. Table 2 categorizes these deaths by maternal age, race, and marital status, and includes the expected percentage of women in these categories per 100,000 live births in Wisconsin.

Discussion

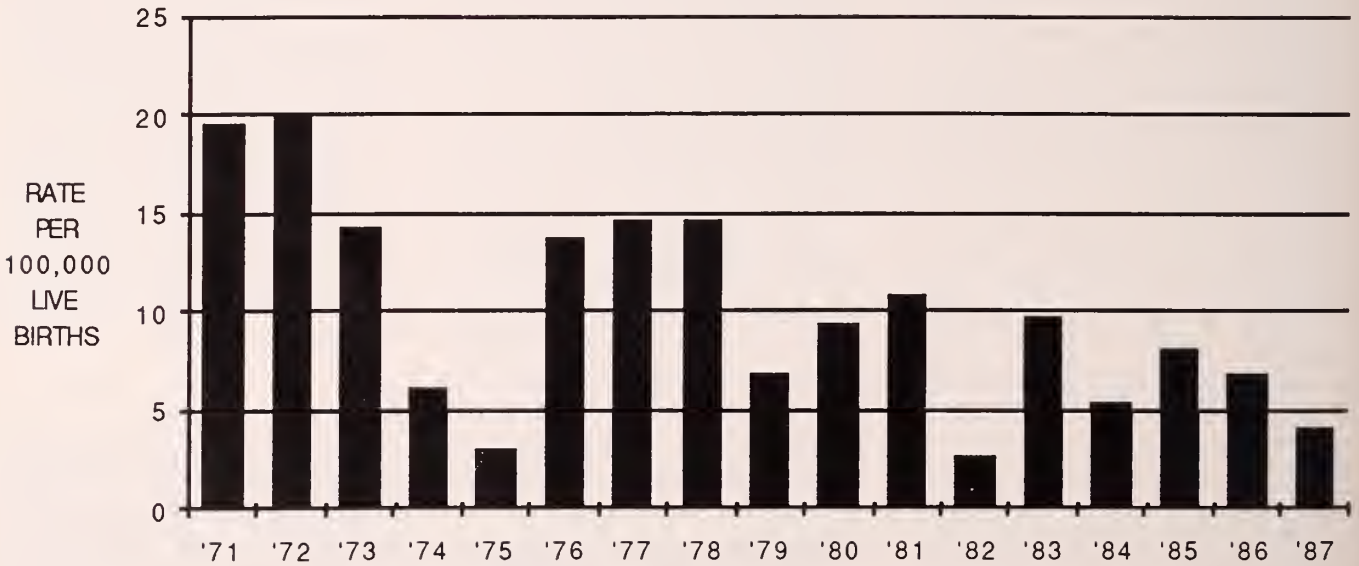
Throughout the United States, embolism has replaced the traditional triad of hemorrhage, infection and toxemia as the leading cause of maternal mortality.[2] Such is also the case in Wisconsin, where 34 emboli were listed as the cause of death. It is more likely that the incidence of hemorrhage, infection and toxemia has decreased rather than that embolism has increased. Improvements in anesthesia, surgical technique, blood banking, and antibiotic therapy have been effective in treating these conditions. In addition to earlier detection and improved treatment, the shift away from traumatic deliveries has also played a role, and the replacement of the classical Caesarean section by the low transverse incision no doubt has also been responsible for the decline.

Cerebrovascular accident and toxemia are the two categories most likely to have cases in their totals that belong in the other category. A cerebrovascular accident may be the terminal event for women dying from toxemia, and patients' seeking only late prenatal care, poor documentation of blood pressure in office and hospital records, and atypical presentations of toxemia may lead to the toxemia category being under-used in favor of the cerebrovascular accident group. Anesthetic problems frequently arise from aspiration, intubation difficulties, and faulty monitoring equipment. Obstetric patients pose a high risk for aspiration complications. Many of the intubation problems were in obese patients.

Most deaths from abortions were due to hemorrhage and infection. Six of the eight deaths occurred before the Roe *v* Wade Supreme Court decision in 1973.

Included in the indirect group are women with collagen vascular disease, cardiac disease, and diabetes. These underscore the importance of prenatal counseling to assure that these women have been informed of the increased risks associated with pregnancy.

Within the nonmaternal death group, the majority resulted from



Maternal mortality in Wisconsin (corrected) 1971 to 1987.

motor vehicle accidents. Certainly, seat belt use and speed limits effect these rates.

The Wisconsin figures for deaths by age group, race, and marital status are consistent with those found throughout the United States[2,3] Although accounting for only 5% of the pregnancies, women age 35 and older accounted for 17.3% of the maternal mortalities. Chronic hypertension as well as an increased fatality rate from eclampsia are known to occur more frequently in this group. Underlying systemic disease and parity may also contribute to the increased risks.[4]

Black women are also at higher risk of death, accounting for only 7% of pregnancies, but 15% of the deaths. Similarly, the unmarried group accounted for 23% of deaths, but made up only 17% of the pregnancies. We must ask if current health initiatives adequately target these populations.

Through 1987 there have been no reported maternal deaths from AIDS in Wisconsin, but it is probable that we will add this cause to the list in the future.

This review of maternal mortality statistics provides insight into both the medical and behavioral circumstances leading to loss of life. As health providers we can learn from this data and continue to strive through quality health care and patient counseling, to achieve maximum safety and well-being for women in Wisconsin during childbearing.

Table 2—Maternal mortality statistics

Age	**No.**	**%**	**% expected**
15–19	21	11.4	10
20–30	95	51.6	65
30–34	34	18.4	18
>34	32	17.3	5
unknown	2		
Race	**No.**	**%**	**% expected**
white	145	78	90
black	29	15	7
other	9	5	3
unknown	1		
Marital status	**No.**	**%**	**% expected**
married	136	74	83
not married	42	23	17
unknown	6		

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Maternal mortality in Wisconsin: cerebral vascular accident

Herbert F. Sandmire, MD, Green Bay

CEREBRAL VASCULAR accident (CVA) is responsible for an increasing proportion of maternal deaths. It is doubtful that there is an actual increase in the risk from this cause but rather a slower decrease compared to maternal deaths from hemorrhage, infection and pregnancy-induced hypertension.

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Methods

The SMS Study Committee on Maternal Mortality Survey reviews, in a detailed fashion, all deaths of Wisconsin women associated with pregnancy. The review focuses on causation, appropriateness of professional care, and factors, if any, of avoidability. Attending physicians, by their request, are provided with a copy of the committee's opinions regarding each of these segments of review. The present report is an analysis of 20 deaths caused by CVA, occurring in pregnant women from 1971 to 1984.

Results

The causes of the CVA, resulting in the deaths of 20 pregnant women, are

Table—Causes of CVA-associated maternal deaths	
Pregnancy-related	
Eclampsia	3
Preeclampsia	2
Preeclampsia plus aneurysm	1
Not pregnancy-related	
Probable aneurysm	6
Aneurysm	2
Arterio-venous (A-V) malformation	2
Malignant melanoma	1
Probable A-V malformation	2
Septicemia (campylobacter)	1
Total	20

tabulated in the Table. Autopsy, computed tomography scan, and craniotomy findings were available to the committee in 11, two, and one, respectively. Fourteen occurred in women with essentially normal blood pressure. Aneurysms were positively identified in three of these and A-V malformation in two cases. An inferential diagnosis of aneurysm was made in the six cases of cerebral hemorrhage occurring in patients with normal blood pressure and no coagulopathy. Similarly, a presumptive diagnosis of A-V malformation was made in two patients. The hemorrhage was due to cerebral metastasis of a malignant melanoma in one and septicemia in another. These 14 deaths were due to causes extraneous to pregnancy.

Preeclampsia and eclampsia were each responsible for three deaths. An aneurysm was a postmortem finding in one of the preeclamptic patients. Five of these deaths were judged by the committee to have avoidable factors; one because of patient's failure to follow recommended treatment and a possible delay in treatment of elevated blood pressure in the other four.

Comment

Fourteen of the 20 deaths in pregnant women caused by CVA were not due to the condition of pregnancy. They occurred in women who happened to be pregnant at the time of their CVA.

Five of the preeclamptic and eclamptic deaths (maternal deaths) were potentially preventable. In these cases, earlier and more intensive treatment of the pregnancy-induced hypertension may have prevented the CVA. Although hypotensive agents do not improve the outcome in mild pregnancy-induced hypertension, they should be used to prevent or treat extreme blood pressure elevations. There is no consensus on blood pressure levels that mandate the use of hypotensive agents, but keeping the systolic and diastolic pressure below 190 and 110, respectively, seems reasonable.

From 1971 to 1984, 20 pregnant women in Wisconsin died from CVA. Six of these deaths were classified as being directly related to the pregnancy. During the same time, 972,994 live births and 7,799 stillbirths occurred in the state, totalling 980,793. Eighty-four of these pregnancies directly resulted in the demise of the pregnant or postpartum patient. Another 36 pregnant women died from causes unrelated to the pregnancy. Thus, six of the pregnancy-related deaths (7%) occurring during the time reviewed resulted from CVA. This is a frequency of one per 162,165 births. Considering both the pregnancy-related and unrelated CVA deaths, the frequency of a fatal CVA in pregnant women is one per 49,039 births. This compares with one CVA death per 57,000 Wisconsin women aged 15 to 44 per nine month (pregnancy duration) period. Thus, pregnancy presents a relative risk for CVA of only 1.16. According to these relative risk calculations, only three of the 20 CVA-associated maternal deaths were caused by the pregnancy.

In addition, this low relative risk suggests that pregnancy does not significantly increase the risk of rupture of aneurysms or AV malformations. This is fortunate since we currently have no management scheme which will prevent their rupture in normotensive pregnant patients. Finally, this study demonstrates the lack of a cause and effect relationship between pregnancy and fatal CVA in the vast majority of cases.

Physicians and nurses can't define "brain dead"

Most doctors and nurses likely to be involved in procuring organs for transplantation are confused about the legal and medical definition of *brain dead*, according to a study reported in *JAMA*.

"Health professionals have personal concepts of death that vary widely and are often confused and contradictory," say the authors, Stuart J. Youngner, MD, and colleagues at the Case Western Reserve University School of Medicine. Such confusion may interfere with the procurement of donor organs that could help save the lives of patients waiting for suitable organs.

In the survey of 195 physicians and nurses, only 35% correctly identified the legal and medical criteria for determining death; 58% did not consistently use a coherent concept of death in answering survey questions; and 19% had a concept of death consistent with a different standard, one that would allow anencephalics and patients in a persistent vegetative state to be declared dead.

Maternal mortality in Wisconsin: infection

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Fond du Lac

INFECTION IS THE FOURTH most common cause of maternal death in the nation, as well as in Wisconsin. Hemorrhage and sepsis, along with toxemia, were the most common causes of maternal mortality in the United States in 1971.[1] While sepsis had been the single most frequent cause of maternal mortality in the not too distant past, the use of prophylactic antibiotics in obstetrics and the more aggressive management of pelvic infections have probably significantly reduced maternal deaths. The incidence of pulmonary and amniotic fluid embolism has not changed.[2]

In the period between 1971 and 1985, the SMS Study Committee on Maternal Mortality Survey reviewed 24 cases of maternal mortality attributed to infection. The information was reviewed at intervals of approximately 12 months by the committee, which is composed of family physicians, obstetricians, internists and a pathologist. When indicated, assistance was obtained from infectious disease specialists, hematologists and other appropriate specialists. This article will discuss the findings of the committee and suggest some trends in infection-related maternal deaths.

Materials and methods

The statistics for the paper were obtained from records provided to the committee on request from involved physicians and hospitals and from death certificates. Frequently, additional information was obtained by an interview of the physician or hospital personnel by the committee interviewer. Facts and findings were then presented to the entire committee for review and deliberation. The committee determined the cause of death and defined it as direct or indirect. A direct cause of death was defined as death due to pregnancy itself, from intervention caused or elected by pregnancy, or resulting from events initiated by the complication of the intervention. An indirect death was defined as a death resulting from disease before or developing during pregnancy (not a direct effect of the pregnancy) that obviously was aggravated by the pregnancy and caused the death.[3] Detailed information from these deaths in 1971 is not available, but gestational age and cause of death are determined. The findings of the committee from all other years were carefully reviewed.

Results

From 1971 through 1985, Wisconsin reported 171 maternal deaths from all causes. Of the 24 cases of infections resulting in maternal demise, 13 were determined to be due to septicemia. Three of these were associated with early abortions, two of which were thought to be non-professionally induced.

In three instances, intra-abdominal catastrophes resulted in fatal intra-abdominal sepsis. These cases included one patient with a septic ruptured salpingeal pregnancy who died postoperatively of sepsis and renal failure. Surgery was delayed in this minor who refused to consent to surgery for 29 hours, until her parents were located.

A second case of peritonitis resulted from a ruptured appendix in the 32nd week of gestation, resulting in multiple intra-abdominal *E coli* abscesses.

The third patient was a 19-year-old woman who died of sepsis due to a perforation of the terminal ileum secondary to a strangulated hernia.

In one instance, a renal etiology was thought to be the source of infection, occurring in a young woman (aged 20). The woman had a multiple gestation and developed fatal pyelonephritis and sepsis at 38 weeks. Only culture reports were available on this patient; they revealed the presence of Klebsiella.

Sepsis occurred as a complication of surgery in three patients. Mortality due to postoperative sepsis occurred in two patients who had undergone Caesarian sections, one with morbid obesity. The type of organisms was not listed. The third case of postoperative infection mortality followed a cerclage at 14 weeks in a diabetic patient with cervical incompetence, resulting in a Neisseria meningitis septicemia.

Four remaining cases of septicemia included a case of bifida bacterium infantum sepsis in a 31-year-old chronic alcoholic, a gram-negative septicemia in a grossly obese 24-year-old diabetic with suppurative pancreatitis and acute renal necrosis, a fulminate Streptoccal pneumonia septicemia in a woman with immune deficiency syndrome (low IgG, IgA, and high IgM), and a single case of septicemia for which records are incomplete.

Sepsis from pulmonary sources resulted in death in three patients. Two cases of pneumonia, one from Influenza A and the other from *Staphylococcus aureus* were recorded, both in young prenatal patients. The third case resulted in a *Proteus mirabilis* pneumonia following a pulmonary emboli developing after a C-section.

There were two additional deaths from miscellaneous etiologies. Septicemia with toxic myocarditis resulting from endometritis (*Clostridium sordelli)* resulted in death six days postpartum. Acute enteritis, Cam-

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pylobacter, complicated by thrombocytopenia and cerebral hemorrhage resulted in septicemia and contributed to death in a 26-year-old woman who spontaneously delivered a stillborn premature infant.

Twenty percent of maternal deaths due to infection (five cases) were due to viral hepatitis. In four of these patients, hepatitis followed infusion of either blood or fibrinogen or both, following obstetrical hemorrhage, usually abruptio placentae. The virus was identified as the Australian type. A single case did not follow the transfusion of blood products or IV sources, and the etiological agent for the acute hepatitis was not identified.

Discussion

When possible, the committee attempted to assign factors of a responsibility for the death. In most cases, infections were bacterial. With the early use of antibiotics and a more aggressive treatment of pelvic infections, however, in the future, viral sources of infection may play a larger role in maternal death. In the majority of cases (16), the committee determined the deaths to be unavoidable. The serum hepatitis deaths were determined to be unavoidable, as in all cases transfusions were indicated. In this series, the low socioeconomic, the diabetic and the obese patient constituted a large proportion of maternal deaths. Disseminated intravascular coagulopathy occurred in five of the bacterial infections, and while recognized and treated, contributed to the patients' demise. Complications of obstetrical surgery continue to contribute to maternal mortality due to infection as well as embolism and hemorrhage. Awareness of risk factors, early recognition of infection and early aggressive treatment with intravenous antibiotics, timely and appropriate surgery, and careful follow-up remain the best opportunity to reduce maternal mortality due to infection.

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Maternal mortality in Wisconsin: embolism

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MATERNAL DEATH RATES are studied to evaluate the quality of obstetrical care and serve as an educational tool for improving care for the future. It is therefore important to disseminate the knowledge gathered from maternal death studies so that it can be applied to clinical practice.

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Maternal death from embolism is the most common cause of non-abortive maternal mortality.[1] The purpose of this study was to examine embolic maternal mortality in Wisconsin between the years 1971 and 1986.

Methods

Summaries from the case records reviewed by the SMS Study Committee on Maternal Mortality Survey were used as the source of data. Maternal death was reported to the SMS from death certificates by the Department of Health and Social Services. The clinical circumstances surrounding each case were then obtained by an examination of medical records and one-on-one interviews with the physician involved in the case by members of the committee. Cases were then presented to the committee as a whole group for deliberation and the assignment of factors of avoidability and, where appropriate, responsibility.

Table 1.—Embolic deaths in Wisconsin 1971–1986

Pulmonary embolism	17	56.7%
Amniotic fluid embolism	11	36.7%
Air embolism	2	6.6%

Results

A total of 30 embolic deaths occurred in Wisconsin from Jan 1, 1971 to Dec 31, 1986. The causes of embolism are shown in Table 1.

Pulmonary embolism was the most common embolic phenomenon. Of 17 deaths due to pulmonary embolism,

five occurred in the antepartum period, one in the first trimester and four in the second trimester. Five deaths occurred on the day of delivery, one in the first seven postpartum days, and six at between seven and 90 days post-delivery. Seven of the 17 deaths were associated with cesarean delivery. The ages and parity of patients dying from pulmonary embolism are shown in Table 2. Eight of 17 patients were nulliparous and eight were under the age of 30.

Sources for the emboli were mentioned in two circumstances: the right ovarian vein and right femoral vein.

Death from pulmonary embolism was determined to have been unavoidable in 11 cases, undetermined in four, and avoidable in two cases. In the avoidable circumstances, professional responsibility was a factor in one death and patient responsibility in the other.

Amniotic fluid embolism occurred at term, in labor, to older multiparous patients. Six of the 11 patients who died of amniotic fluid embolism were over 30 years of age. Only one patient was nulliparous. The ages and parity of patients dying of amniotic fluid embolism are shown in Table 3.

Of 11 deaths caused by amniotic fluid embolism, only one occurred at less than term (30 weeks gestational age), and this occurred at home.

Factors of avoidability were identified in three of the 11 cases, with professional responsibility ascribed in all three cases.

Two deaths were due to air embolism. Both occurred in the last trimester and were likely due to coitus. One death was determined to be avoidable with patient responsibility a factor, and the other was unavoidable.

Table 2.—Ages and parity of patients with pulmonary embolism

Age	20	20–24	25–29	30–34	35
Parity	1	1	0,0,0,0,1,4	0,0,0,2,3	0,2,3,3

Table 3.—Ages and parity of patients with amniotic fluid embolism

Age	20–24	25–29	30–34	35
Parity	1,3	0,2,3	3,4	2,5,10 ?*

*one patient over the age of 35 did not have parity recorded

Discussion

The causes of embolic maternal mortality in Wisconsin between 1971 and 1986 were distributed in an almost identical fashion to those described by Kaunitz et al.[1] He found pulmonary embolism to be the cause of death in 55% of maternal embolic cases, amniotic fluid embolism in 38%, and air embolism in 6%.

Unfortunately, of the 30 embolic deaths in this series, factors of avoidability were identified in only six patients. Embolism is usually a sudden and unanticipated event. Pulmonary embolism, perhaps, offers the best prognosis for survival. It is said to occur in one in 2,700 to one in 7,000 deliveries.[2] The classic triad of an increase in clotting factors, venous stasis, and trauma to the venous system associated with delivery predisposes the patient to thromboembolic disease. In this series, however, five deaths occurred in the antepartum period and five on the day of delivery, suggesting that very little could have been done to anticipate pulmonary embolism. Furthermore, eight pulmonary embolic deaths were to nulliparous patients and eight occurred in patients under the age of 30. It is possible that pulmonary embolism was over-diagnosed, since five deaths occurred on the day of delivery, suggesting the possibility of amniotic fluid embolism. Autopsy confirmation of pulmonary emboli was present in at least one of these cases, however. This is, again, somewhat disconcerting in view of efforts to predict the risk for embolism.

Classic symptoms of pulmonary embolism include: dyspnea, pleuritic chest pain, apprehension, and cough. Diagnosis is not always easy. Tachypnea is nearly always present. Other signs may include wheezing, pleural friction rub and an accentuated second heart sound. In massive pulmonary embolism signs of right-sided heart failure—such as jugular venous distension, liver enlargement, hypotension, and even convulsions—may be present.

Diagnostic evaluation should include arterial blood gas values with an arterial PO_2 greater than 85mm of mercury on room air suggesting that the chance of pulmonary embolism is small, but does not completely eliminate it. A chest roentgenogram may show signs of pulmonary embolism, but test results may be normal in up to 30% of cases. The most common electrocardiographic finding is tachycardia, but right axis shift and nonspecific t-wave inversion may be seen.

If the diagnosis is still uncertain, a lung scan may be necessary. Since the consequences of pulmonary embolism and its treatment are significant, definitive diagnosis must be established. There is no contraindication to the use of a lung scan in the undelivered patient since the dose of radiation exposure to the fetus is minimal.[3]

Pulmonary angiography may be indicated if the results of perfusion scanning are indeterminate.

Once pulmonary embolism has been diagnosed, the patient is treated with anticoagulants. Partial thromboplastin time is maintained at between 1.5 and 2 times the control value.

Prophylactic heparinization is recommended for patients with a pre-

vious history of pulmonary embolism or deep vein thrombosis, particularly those arising in the pelvis or thigh. We have maintained patients on subcutaneous heparin, increasing the dose as necessary to maintain partial thromboplastin times in the therapeutic range to the third trimester. Once labor is established, the discontinuation of heparin usually allows reversal. On occasion, protamine sulfate may be necessary to bring the partial thromboplastin time towards normal. Resumption of heparin should occur immediately post-delivery with a switch to coumarin derivatives (Coumadin) if the patient is not breastfeeding. Treatment should continue for four to six weeks.

Amniotic fluid embolism also occurs as an acute catastrophic event during labor, delivery, or the first few hours postpartum. The patient manifests dyspnea, agitation, and anxiety. Most often, patients die during the initial resuscitative efforts. The differential diagnosis includes acute pulmonary edema and pulmonary emboli from the peripheral venous circulation. The presence of shock out of proportion to any clinical blood loss and laboratory findings suggestive of disseminated intravascular coagulation serves to help in differentiation. Therapy is supportive and intended to maintain oxygenation and perfusion and to control disseminated intravascular coagulation. Patients need to be quickly intubated, and cardiac output support with volume expansion and pressure agents may be necessary. Catheterization with central hemodynamic monitoring is now mandatory. Recovery of squames from the pulmonary artery will confirm the diagnosis.[4]

Air embolism during pregnancy is a rare phenomenon. The diagnosis is confirmed by crepitus in the subcutaneous tissues in the neck and trunk areas and at autopsy there are air bubbles in the right side of the heart and pulmonary artery. During pregnancy, the veins of the uterus are exposed and fixed and, when traumatized, they remain open. During intercourse with rear entry into the vagina, air under pressure may be forcibly pumped into uterine sinuses. Similarly, oral-genital sex play with air blown into the vagina may result in a similar situation.[5] Accordingly, it is advisable to warn patients that in the last trimester of pregnancy sexual activities in the knee-chest position and oral-genital activities are inappropriate.[6]

In this paper, 30 embolic deaths over a 16-year period in the state of Wisconsin have been described. A reduction in embolic deaths for the future might be anticipated based on a potential reduction in operative deliveries, newer and improved methods of central hemodynamic monitoring, therapy for acute cardiovascular and respiratory events, and appropriate professional and public education regarding sexual practices in the last trimester of pregnancy.

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Two anti-arrhythmic drugs removed from clinical trial

Encainide and flecainide have been removed by the National Heart, Lung and Blood Institute (NHLBI) from clinical trials involving patients who previously had suffered heart attacks. An NHLBI spokesperson said the action was based on recommendations of the Data and Safety Monitoring Board, which concluded that test-trial data showed no benefit from the two drugs in the types of patients studied but suggested a possible harmful effect in the clinical population in question.

Among 730 patients who had been assigned encainide or flecainide and who had been treated an average of ten months, 56 had died or suffered cardiac arrest while only 22 who received placebos had died or suffered cardiac arrest.

The FDA and the manufacturers of encainide and flecainide are asking that the drugs not be used for arrhythmias that are not life-threatening. Use of the drugs should not be interrupted, however, in life-threatening situations.

The Tax Reform Act of 1986: Section 89

Sally Wencel, JD, SMS staff attorney

The Tax Reform Act of 1986 (TRA '86) added a new section to the Internal Revenue Code, the so-called Section 89, that creates a complex set of rules that must be applied to employee welfare and specific fringe benefit plans. More recently, Congress enacted the Technical and Miscellaneous Revenue Act of 1988 (TAMRA) that made substantial revisions to the new Section 89 law. In addition, this past March the Federal Treasury Department issued proposed rules that further interpret the Section 89 requirements. Because of the complexity of Section 89 requirements and the intricacies of testing for compliance, this article is necessarily general and attempts only to give a basic outline of these requirements so that physicians are alerted to the possibility that they might need to comply with this new law.

In broadest of terms, Section 89 imposes an array of nondiscrimination requirements that apply to insured and self-insured accident and health plans as well as group term life insurance plans and elective fringe benefit plans. The original intent of Section 89 was to require reporting of benefits provided to highly compensated employees that exceed those provided to non-highly compensated employees so that these excess benefits can be taxed as income. A principal objective of the law was to extend health coverage for employees not now covered. In addition to non-discrimination of benefit plans, Section 89 sets out qualification requirements of which an employer's failure to meet can result in employees, regardless of compensation level, being taxed on the value of benefits actually received.

Compliance with Section 89 is determined by the employer running a test of all benefit plans on one day during the test year using specified eligibility and plan value measures.

Under the law in effect at this writing, Section 89 benefit plan qualification and non-discrimination testing requirements apply, with specified exceptions, to plan years beginning after Dec 31, 1988. Pressure is building on Congress, however, to delay implementation and eliminate or modify rules that are overly complex or expensive to administer.

Who is subject to Section 89?

Nearly all employers are subject to Section 89 with the exception of churches and certain church-related organizations. Certain employers need not perform the non-discrimination tests because they either employ only non-highly compensated employees or only highly compensated employees and, therefore, could not fail the non-discrimination test. These employers must comply, however, with the qualification requirements, which will be discussed later in this article.

Which plans are subject to Section 89?

Section 89(k) sets five mandatory requirements that must be met by certain employee welfare and fringe benefit plans. These plans include:

- accident and health plans, covering medical, dental, orthodontia, elective cosmetic surgery, psychological, vision, hearing, and prescription drug benefits, health care spending accounts, employee assistance plans, and health and wellness benefits such as routine physicals, smoking cessation, weight control benefit programs, and special executive medical plans;
- certain long-term disability plans;
- accidental death and dismemberment and other dismemberment plans;
- business travel accident plans;
- group-term life insurance plans;
- qualified tuition reduction programs;
- qualified group legal services plans;
- cafeteria plans;
- education assistance programs;
- dependent care assistance plans;
- fringe benefit programs providing no-additional cost services, qualified employee discounts, or employer-operated eating facilities; and
- plans to which Code §505 applies.

Two plans are specially exempted, sick pay plans and church plans.

What are qualification requirements?

The five mandatory qualification requirements are similar in nature to the Employee Retirement Income Security Act of 1974 (ERISA) disclosure requirements, although broader. These requirements are:

- the plan must be in writing;
- an employee's rights under the plan must be legally enforceable (ie, it is not within the employer's discretion to offer the benefit);
- employees must be provided reasonable notification of benefits available in the plan;
- the plan must be maintained for the exclusive benefit of employees (including, where permissible, spouses and dependents of the employees); and
- the plan must be established with the intent to maintain it for an indefinite period.

The recently proposed rules define compliance with much greater detail and allow for additional time to qualify plans.

If an employer fails to meet the five mandatory qualification requirements, the IRS will consider the benefits provided under the plan as income. The consequences of an employer's failure to comply fall first on the employees, and secondly on the employer for its failure to report the benefits as income. All employees, regardless of compensation, would be subject to this income tax if the benefit plans failed to meet the qualification requirements.

The penalties on the employer for its benefit plans' failure to qualify under Section 89 can be equally punitive. The employer would be penalized for its failure to report these benefits on the employees' W-2 forms by a non-deductible excise tax on all benefits paid under the plan at the highest individual tax rate. Without question, employers need to determine whether they need to comply with the new Section 89 qualification requirements and if so, comply within the time allowed by law.

Testing for discrimination

Highly compensated versus non-highly compensated employees.

Discrimination is the term used to indicate that a benefit plan disproportionately benefits highly compensated employees. This disproportionate benefit must be reported to IRS by both the employee and employer as income. The term "highly compensated employee" is a uniform definition created by TRA and, with minor differences, applies to all tax-favored benefit plans including retirement, 401(k), health and welfare plans. For the purposes of 1989, highly compensated employee is one who during the current or preceding testing year:

- earned more than $75,000;
- was in the top 20% group of employees and earned more than $50,000;
- owned more than 5% of the company; or
- was an officer of the company and earned more than $45,000.

The income amounts included in the requirements are indexed for inflation and will therefore change from year to year. Alternative rules and additional definitions were included in TAMRA which apply to specific instances such as officers and in highly complex rules later issued discussing whether to include highly compensated employees who have separated from the employer. As stated earlier in this article, if all employees are highly compensated, or, in the converse, if all employees are non-highly compensated, there would be no further need to determine whether the benefit plans are discriminatory.

Determining employees to be included in testing.

After determining whether and which employees are highly compensated, employers need to determine which employees are to be included in the non-discrimination test. Employers may exclude from consideration when performing the Section 89 nondiscrimination test those employees who:

- have not completed one year of service (6 months of service in the case of core health benefits);
- normally work less than 17.5 hours a week (this exclusion is phased in over three years for employers with fewer than 10 employees);
- normally work during no more than 6 months during any year;
- have not attained age 21;
- are in a collective bargaining unit between one union and one employer if the type of benefits provided under the plan were the subject of good faith bargaining;
- are nonresident aliens with no U.S.-source income;
- are students who are enrolled and regularly attending classes at an employer that is a school, college, or university if the employer need not withhold FICA taxes from their wages and the employer makes core health coverage available to them.

Former employees, such as retirees or terminated disabled workers, must be tested separately from active employees. Former employees who left the organization before 1989 and are not rehired are excluded from testing unless their benefits are later raised or modified in a discriminatory fashion. (Raising benefits to comply with state and federal law, such as the "maintenance of effort" provisions of the Medicare Catastrophic Coverage Act would not be considered discriminatory.) As stated previously, former employees must be defined as either highly compensated or non-highly compensated employees.

Selecting a plan year and test date

To run any benefit plan test, the employer must determine the "plan year" and "test day." Employers must designate the plan year in advance. Plan year refers to 12 consecutive months selected by the employer to represent the plan year, although the first plan year cannot run beyond Dec 31, 1989. If no plan year is designated, the testing year is the calendar year and the first testing year will begin Jan 1, 1989. The employer must select the same plan year for all benefit plans to be tested, but may have different plan years for benefit plans that are not of the same type.

The test date is any day during the testing year that reasonably represents the plan year. The test date is a "snap shot" from which the results are annualized. Employers must select the same test day for all plans of the same type (ie, health plans), or all plans treated as the same type for discriminatory testing purposes (ie, permissive aggregation).

Employers should be aware of rules that apply to changes made in benefit plans during the plan year and notification requirements that arise because of these plan changes. Changes in plans that occur during the plan year will effect the manner in which benefit values are calculated. Any change in coverage of highly compensated employees is defined as a plan change. Plan changes made before the earlier of July 1, 1989, or the testing day of the first plan year, however, need not be reported so long as the qualification requirements concerning employee notification are met.

Running the test

There are four tests to determine whether benefit plans are discriminatory, each varying in complexity and methodology. An employer might conclude, after reviewing what is required in terms of running a non-discrimination test, that it would be more cost-effective to declare plans discriminatory and add the discriminatory benefit excesses' value to the highly compensated employees' reported income.

Of the four tests, one is often referred to as the short form and the other three as long form tests. Generally, employers would test benefit plans for acceptability under Section 89 beginning with the short form test, and if the plans fail, then apply each of the long form tests. The short form test is called the "80% coverage test" and requires that the plan or group of comparable plans must benefit 80% of non-highly compensated employees, so long as the plan does not contain discriminatory eligibility provisions as discussed. It should be noted that an individual for testing purposes is considered to benefit under the plan if he or she receives coverage under the plan—eligibility to receive coverage is not adequate. Other provisions concerning this plan define whether plans are comparable in instances where an employer offers more than one benefit plan within the same basic benefit package (for example, the choice of HMOs and indemnity plan health coverage with varying employee contributions within the medical benefit package).

If an employer's benefit plans fail the short-form test, the employer must apply each of the three long form eligibility tests plus a 75% comparative benefits test. The three long-form

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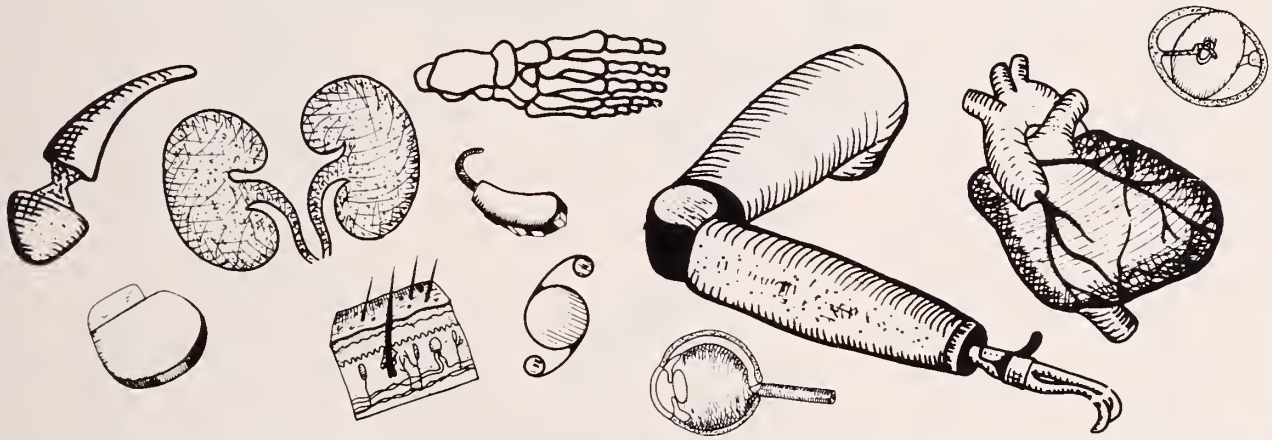

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tests involve calculating the actual percentage of employees participating under all benefit plans and then testing if the plans are discriminate between highly compensated and non-highly compensated employees. The long-form tests as a result require more extensive data collection and analysis than the short-form test. The tests are referred to by the standards by which the benefit plans are tested —the 50% eligibility test and the 90%/50% availability test. After the eligibility tests are run, the plans must be subjected to the 75% comparable benefits test.

In most basic terms, the 50% eligibility test can be employed two ways. First, benefit plans pass the non-discrimination standards if at least 50% of eligible employees are non-highly compensated employees. In the alternative, the percentage of non-highly compensated employees who are eligible to participate in a plan must be at least as great as the percentage of highly compensated employees. The 50% eligibility test must be applied to each individual benefit plan unless they can be aggregated under provisions defining plans that are comparable for testing purposes. The 50% eligibility test is designed to eliminate favorable tax treatment of plans offered primarily to highly compensated employees.

The 90%/50% availability test involves a standard of at least 90% of non-highly compensated employees must have an available benefit worth at least 50% of the most valuable benefit available to any highly compensated employee. Aggregation of all plans of the same kind is mandatory under this test. It is notable that employers with many part-time workers will have difficulty passing this test because a group of more than 10% of non-highly compensated employees who must be included in the test but are not eligible for benefits will result in automatic test failure.

Finally, all plans subject to the long form route must pass the 75% comparable benefits test. Under this test, the average benefit for non-highly compensated employees must be at least 75% of the average benefit for highly compensated employees. The average benefit for each of the two groups is calculated by dividing the value of all benefits by the number of employees included in testing regardless of their actual participation. This comparable benefit test also requires that all plans of the same type be aggregated when performing the calculations. However, a plan of one type that passes this test can "help" benefit plans of different type (except for health benefit plans) pass which might have failed without the "helper" benefit plan. As an example, an employer may aggregate all its health plans (which pass the comparable benefits test) with all of its term and life insurance benefit plans. Several restrictions on aggregation apply, and an employer using aggregation to assist other plans in passing the comparable benefits tests should take care if this "helper" tool is used.

Regardless of whether an employer uses the short form or long form test, a plan cannot contain any provision that by its terms, operation or otherwise discriminates in favor of highly compensated employees. In making this determination, an employer must take into account all plans of the same type. The employer must also select a test date that does not by its operation mask the plans' discriminatory design.

There are several warning signals that benefit plans will not pass the non-discrimination standards set out by Section 89. Plans that will certainly fail are plans where more than 10% of the workforce included in testing are not eligible to participate, executive-only plans, plans with differing levels of coverage for different employee groups, and plans with low employee participation because employees must pay high contributions.

Penalties

Section 89 contains new reporting and record-keeping requirements with severe penalties for violations. Earlier, this article outlined the penalties on both the employee and employer for a benefit plan's failure to qualify as a employee welfare benefit plan under Section 89. Employers do not have the option of electing not to report whether their benefit plans meet the qualification and non-discriminatory requirements unless they wish to take the risk of a future payment of non-deductible back taxes and penalties.

The penalties for a plan's failure to pass non-discrimination tests are less severe but deserve consideration. As stated previously, employers can elect to declare benefit plans discriminatory and not perform the tests. In many instances, this is the only cost-effective decision given the data collection and administration required, or if the plans are by design or operation inherently discriminatory. In this situation, employers must calculate the "discriminatory excess," that is, the amount of the benefits given to highly compensated employees that is proportionately greater than given to non-highly compensated employees. The highly compensated employees are then taxed on this excess as if it is income. Employers may consider offering benefits in cash to employees under these circumstances to compensate, in part, the income tax on benefits.

If the employer fails to report the discriminatory excess in its reporting to IRS under Section 89 or on the employees' W-2 forms, the employer and employee will be subject to sanctions. The penalty on highly compensated employees is limited to some extent. The employer is subject to an excise tax (§6652). TAMRA and recently published regulations contain a schedule of limitations on the tax on highly compensated employees, easing the potential tax hit, that is indexed to inflation over the next several years.

It should be noted that employers are permitted to make corrections in

the Section 89 reports once filed, although the corrections process involves the employer placing employees in the position as if the plan were correctly reported.

The recently published rules contain a variety of transition rules that allow employers more flexibility in coming into compliance with section 89. The transition rules also include temporarily reduced non-discrimination test standards (concerning employee eligibility and value tests) so that employers have an opportunity to pass current benefit plans and change those plans to meet the higher standards originally enacted by Congress. As noted previously in this article, employers may make plan changes without complying with the plan modification reporting requirements so long as those changes are made before July 1, 1989.

Summary

Internal Revenue Code Section 89 imposes a multitude of employee benefit plan disclosure, testing, and reporting requirements on employers beginning in 1989. This article provides a general explanation of these requirements and outlines some of the considerations employers will need to make in coming into compliance. Many employers will need to consult with experts to assist in performing the non-discrimination tests. Some employers might determine that the best economic decision is to declare the benefit plans they offer discriminatory because of the administrative effort required to perform the tests. All employers that offer benefit plans will need to meet the qualification requirements unless they and their employees are willing to pay the penalties for failure to do so.

Cesarean birth limits

The once-held dictum about the need for sterilization after three Cesarean births has been disproved, according to a recent issue of *JAMA*, and there is little evidence to support the view that multiple C-sections raise the risk of uterine rupture in a later pregnancy. David W. Cromer, MD, of Northwestern University Medical School, noted that "there really should be no limit to the number of Cesarean births a woman may have, provided care is taken to evaluate her status after each operative delivery . . . (and) there should be no limit to the number of vaginal deliveries a patient may have following an initial Cesarean delivery through a low transverse cervical incision."

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Public health

Trends in lung cancer mortality in Wisconsin

Patrick L. Remington, MD, and
Michael Fiore, MD, Madison

LUNG CANCER is a significant cause of death and disability in Wisconsin. In 1987, 2,243 people were diagnosed as having lung cancer, and 2,167 people died from the disease, making it the leading cause of death from cancer.[1,2] Despite this enormous burden from lung cancer, many of these deaths are preventable. It is currently estimated that 90% of lung cancer among men and 79% of lung cancer among women is directly attributable to cigarette smoking.[3]

Following the release of the first *Surgeon General's Report on the Health Consequences of Smoking* in 1964, the prevalence of smoking declined sharply among men. Among women, smoking prevalence remained about constant through the 1960s and 1970s and did not begin to decline until the late 1970s.[3] To assess the effect of these changes in smoking prevalence on lung cancer mortality in Wisconsin, we analyzed trends in lung cancer mortality from 1968 to 1987.

Methods

To assess trends in lung cancer, we used published data from the Wisconsin Division of Health.[1,2] For this analysis, lung cancer includes cancer of the trachea, bronchus, and lung (ICD 162). All data are adjusted to the 1970 US population. To assess trends, 5-year moving averages are plotted.

In addition, we predicted the trends in lung cancer mortality for the year 2000 by reviewing trends in smoking over the past several decades. Since comparable trend data are unavailable for Wisconsin, we assumed that trends in Wisconsin were similar to those observed in the United States. Projections to the year 2000 were done assuming that lung cancer mortality trends will follow trends

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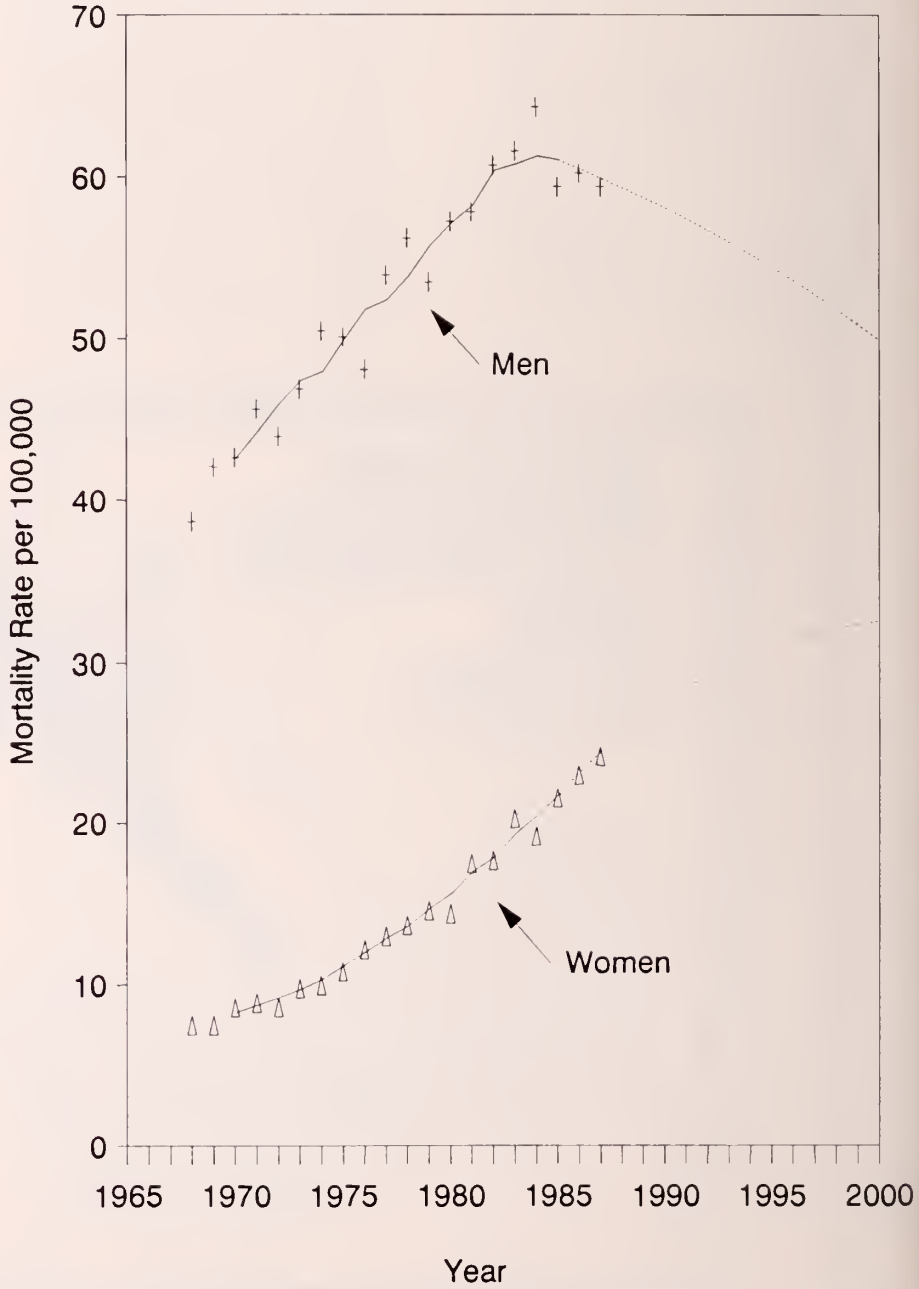

Fig 1—Trends in lung cancer mortality for men and women in Wisconsin, 1968–1987 and projected to 2000.

Dr Remington is a medical epidemiologist in the Chronic Disease Surveillance Unit, Section of Environmental and Chronic Disease Epidemiology, Wisconsin Division of Health. Dr Fiore is an assistant professor in the Department of Medicine, University of Wisconsin–Madison. Reprint requests to: Patrick Remington, MD, Wisconsin Division of Health, 1 W Wilson St, PO Box 309, Madison, WI 53701-0309. Copyright 1989 by the State Medical Society of Wisconsin.

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Continued from page 34
in smoking prevalence by about 20 years.[3,4]

Results

Among men, the age-adjusted lung cancer mortality rates increased sharply from about 39 per 100,000 residents in 1968 to about 59 per 100,000 by 1987. The highest rate occurred in 1984 (about 64 per 100,000), and it appears that the rate has leveled off or has perhaps begun to decline (Fig 1). In contrast, among women, the rates have increased steadily from about 8 per 100,000 residents in 1968 to about 24 per 100,000 by 1987. In contrast to men, however, the rate of lung cancer continued to increase through the 1980s among women, with the highest rate occurring in 1987.

During the past 20 years, the differences in lung cancer rates between men and women have decreased. This change can best be observed by looking at lung cancer rates by various age groups. In 1987, overall, the age-adjusted lung cancer rate was 2.5 times greater among men than among women (59.4 *v* 24.2 per 100,000). These differences, however, are greatest among older persons, with more uniform rates among younger persons (Fig 2).

Historical trends in the prevalence of smoking will affect future trends in lung cancer mortality in Wisconsin. Among men in the United States, the smoking prevalence rate declined sharply and consistently since 1965—from 50.2% to 33.2% by 1985.[3] In contrast, the smoking rate among women was constant from 1965 to 1977 (33.9% and 31.4% respectively) and has only modestly declined since —to 28.0% by 1985. Given these trends in smoking, it is likely that, by the year 2000, lung cancer mortality rates will decrease among men and continue to increase among women (Fig 1).

Discussion

Lung cancer continues to be a leading cause of cancer deaths in Wisconsin and nationwide. In this report, we present trends in lung cancer mortality for men and women in Wisconsin. Our trend analysis indicates that the epidemic of lung cancer among men appears to have peaked in the mid-1980s. In contrast, lung cancer mortality rates continue to increase each year among women, with no sign of slowing.

The causal relationship between smoking and lung cancer has been firmly established. Moreover, the lag time between smoking and lung cancer has been estimated at about

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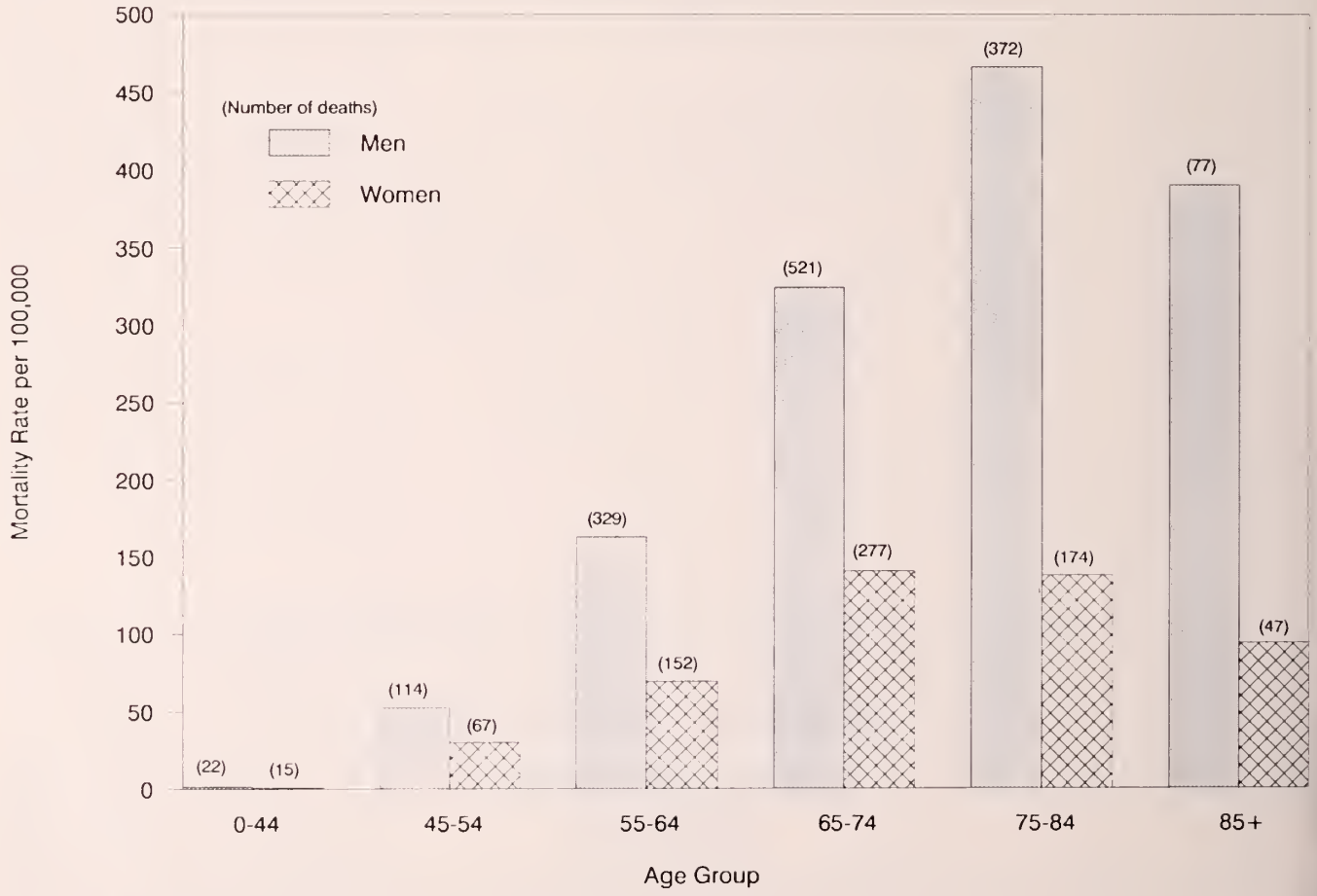

Fig 2—Lung Cancer mortality rates by age and sex, Wisconsin, 1987.

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20 years. Therefore, examining trends in cigarette smoking allows us to predict future lung cancer mortality rates. Although it is difficult to accurately project mortality rates into the future, the clear association between smoking and lung cancer permits us to make such predictions with caution, but with some confidence. Supporting this analysis is the apparent peak of lung cancer mortality among men 20 years after the peak of cigarette smoking. Given the slowed progress against smoking among women, it is likely that lung cancer mortality rates will continue to increase among women in Wisconsin.

Acknowledgment

The authors appreciate the contributions made by Linda Haskins and Jerri Linn Phillips.

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3. US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office of Smoking and Health. *Reducing the Health Consequences of Smoking: 25 Years of Progress.* A report of the surgeon general. DHHS Publication No (CDC) 89-8411, prepublication version, Jan 11, 1989.
4. Brown CC, Kessler LG: Projections of lung cancer mortality in the United States: 1985–2000. *J Natl Cancer Inst* 1988;80:43–51.

Series coordinators

Henry Anderson, MD, chief of the Section of Environmental and Chronic Disease Epidemiology, and Patrick Remington, MD, are coordinating this public health series for the *Wisconsin Medical Journal.* This current report emphasizes the importance of continuing past declines in smoking into the 1990s. Many national studies have now documented that physicians play the most important role in motivating smokers to quit. Publications by the US Department of Health and Human Services aimed to assist physicians in helping patients quit smoking include "Clinical Opportunities for Smoking Intervention: A Guide for the Busy Physician." These and other publications can be obtained from the Division of Health, from the American Cancer Society (1-800-ACS-2345), or by calling 1-800-4CANCER.

AMA awards

The Wisconsin physicians listed below recently earned AMA Physician Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

March 1989

*Arnesen, Richard B., Madison
*Bernardoni, Robert J., Darlington
*Biehl, Mark D., Waukesha
*Caya, James G., Burlington
Chaillet, James R., Elm Grove
*Chen, Hong Mo, Marshfield
*Chiplunker, Susmita, La Crosse
*Davidoff, Donna D., Mequon
*Fisher, Albert L., La Crosse
*Gani, Kosasih S., Marshfield
*Gould, John S., Milwaukee
*Haesemeyer, Allan J., Shell Lake
*Hamilton, Gurdon H., Marshfield
*Hansotia, Phiroze L., Marshfield
*Kobelt, Carl C., Manitowoc
Korte, Stephen A., La Crosse
*Lechmaier, Timothy E., Madison
*Leenhouts, Kenneth C., Waukesha
*Longstreth, Charles R., Ashland
*Magnin, George E., Marshfield
*Mathers, James D., Baraboo
*Mazza, Joseph J., Marshfield
*McDevitt, William P., Milwaukee
*Moore, C. E. McDaniel, Fond du Lac
*Norfleet, Robert G., Marshfield
*Patrick, June C., Wauwatosa
*Weir, Gordon J., Marshfield
*Wyman, John B., Marshfield
Zernzack, Lance E., Oshkosh

Legislation created to help Wisconsin's uninsured

The Legislative Council's Special Committee on Health Care Services, chaired by Rep John Antaramian (D–Kenosha), has proposed legislation creating a program to provide health insurance to certain segments of Wisconsin's uninsured population. In addition, the draft proposal establishes grant programs for medically under-served areas.

The bill creates a state basic benefits plan that may be purchased through the state or the private insurance sector. The basic benefits plan would be made available to employees of companies with fewer than 20 employees (also larger groups, if employees' incomes are below 200% of poverty), self-employed persons who meet specified income criteria (not yet determined), and those who are unemployed. Persons who participate in the plan would be eligible for premium subsidies if their income or family income is less than 200% of poverty. Funds for the subsidy would be derived from participant contributions, an employer health care tax on wages, and state appropriations.

Continued on page 40

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Continued from page 38

With certain limitations, the basic benefits package would include inpatient and outpatient hospital care, maternity care, newborn nursery care, emergency care, physician services, and prescription drugs. With a few exceptions, the basic benefits plan is exempt from the mandated coverage provisions of present health insurance law.

Three grant programs are created to provide assistance to municipalities and clinics in medically under-served areas and to physicians who practice in those areas. One program provides for medical education loan repayment (up to $50,000) for primary care physicians who locate in medical shortage areas. Primary care is defined as family practice, general internal medicine and pediatrics. In addition, the loan forgiveness program may apply to OB-GYNs.

Another program provides funds to communities for health care development grants. The Department of Development, with the advice of the Council on Health Care Development created by the bill, and would administer the grant program. The other program creates a Primary Care Outreach Grant Program. This program will provide assistance to community health centers or migrant centers that are funded by the Federal Public Health Service Act. The funds will enable those centers to provide outreach services to targeted and susceptible populations currently not receiving services due to financial, social or cultural barriers.

Optometric scope of practice

As it did in the past legislative session, the Wisconsin Optometric Association is gearing up to pass legislation to authorize optometrists to prescribe and administer therapeutic drugs in the treatment of eye disease. It is expected that efforts will be made to incorporate the legislation in the biennial budget bill, Senate Bill 31.

Under the proposed legislation, optometrists would become certified to diagnose and treat eye disease through use of drugs, and remove superficial foreign bodies, upon successful completion of 100 hours of classroom course work and passage of an examination.

The SMS remains opposed to this legislation, maintaining that a 2½-week course to qualify for medical practice takes a tremendously simplified view of what is required to obtain skills in clinical diagnosis and treatment. The SMS argues that the potential for harm to the public is great, through misdiagnosis, inappropriate treatment, or prescription of drugs inappropriate to a patient's general condition.

News highlights

Sacred Heart Rehabilitation Hospital recently announced that Jerome A. Lerner, MD,* has been appointed medical director. Dr Lerner has served as interim director since 1987 and has been a staff physiatrist at Sacred Heart since 1986. He graduated from the Medical College of Wisconsin and is board-certified in physical medicine and rehabilitation.

The Children's Hospital of Wisconsin medical staff recently reelected Robert J. Miller, MD,* chief of staff. A pediatrician, Dr Miller is also an assistant clinical professor at the Medical College of Wisconsin.

Kenosha Hospital and Medical Center recently announced that Winston I. Cozine, MD, has been appointed director of laboratory and pathology services. He has been with the hospital since 1967.

The St Mary's Hospital medical staff in Ozaukee recently elected Kenneth Jensen, MD, president, Salvador del Rosario, MD,* vice president, and Lester Bickford, MD,* secretary and treasurer. Dr Jensen, an internist, is with the Milwaukee Medical Clinic. Dr del Rosario is an internist in Grafton and has been associated with St Mary's since 1972. Dr Bickford, a family practice physician in Fredonia, has been with the hospital for the past eight years.

The St Catherine's Hospital medical staff in Kenosha recently elected the following officers: Stephen D. Boren, MD,* chief of staff; Mario Garretto, MD,* vice chief of staff; and Neil A. Shepler, MD,* secretary.

Adams explains peer review at Milwaukee conference

Wisconsin physicians and the SMS are committed to effective physician peer review and fair government regulation of the profession, Thomas L. Adams, SMS secretary and general manager, told participants at a recent conference on regulation of the professions and occupations.

Adams also said the SMS was astonished at a report by the Wisconsin Academy of Trial Lawyers and the Center for Public Representation (CPR) alleging that physicians have failed to discipline their incompetent colleagues. Released two days before the conference, which was sponsored by the CPR, the report charged that the Medical Examining Board (MEB) has failed to take action against incompetent physicians and included anecdotes about physicians who have continued to practice after losing several medical malpractice suits.

"If imitation is the highest form of flattery, I suppose the State Medical Society should be quite flattered," Adams said. "The report's recommendations to improve the medical disciplinary system in Wisconsin only echo those set forth by our own task force in 1986."

In his talk, Adams reviewed the respective roles of government and associations in regulating the medical profession and discussed Society efforts in this area through the work of the Task Force on Physician Review and Discipline, the Commission on Mediation and Peer Review,

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and the Statewide Impaired Physician Program. He also noted that there is a wide spectrum of additional review activities in which physicians must participate daily as they practice their profession. In addition, he pointed out, physicians are subject to review through other groups such as Medicare, the Wisconsin Peer Review Organization (WIPRO), and managed care plans. "My purpose in bringing up these additional types of reviews which regulate the medical profession is to note that the number of reviewers is increasing as is the complexity. This is not necessarily good or bad, but it does influence the costs of health care." Adams said.

Other conference speakers included Nancy Rottier from the Wisconsin Academy of Trial Lawyers (and author of the report), Marlene Cummings, secretary of the Department of Regulation and Licensing, Thomas Pfaehler, MD, chair of the Medical Examining Board, and Walter Dickey of the University of Wisconsin Law School.

Critical care rationing

Considerable evidence suggests that critical care is being rationed in the United States—not all care expected to be beneficial is being provided to all patients who want it—according to a recent report in *JAMA*. "Although the extent of rationing is uncertain, it is an everyday occurrence in some hospitals and is likely to occur at least some of the time in many hospitals," say authors Paul E. Kalb, MD, of the Yale Law School, and David H. Miller, MD, of the New York Hospital-Cornell Medical Center. "Substantial evidence suggests that current rationing practices are highly subjective and perhaps inequitable."

Physician briefs

James O. Steele, MD,* recently joined the staff of Gundersen Clinic, Ltd, in Independence. Board-certified in family practice, Dr Steele received his degree from the Medical College of Wisconsin and served a residency at Broadlawns Medical Center in Des Moines, Iowa.

Richard H. Christenson, MD,* was recently appointed medical director of Blue Cross & Blue Shield United of Wisconsin and its Compcare HMO and United Wisconsin Group subsidiaries. Dr Christenson graduated from the University of Wisconsin Medical School. He previously served as chief of radiology at Mount Sinai Medical Center in Milwaukee.

Thad C. Hagen, MD, co-chairman of the department of medicine of the Medical College of Wisconsin, was recently named associate dean of MCW and senior vice president for professional and academic affairs at Froedtert Memorial Lutheran Hospital in Milwaukee. Dr Hagen, who will assume his post on July 1, succeeds Charles L. Junkerman, MD,* who is retiring after serving in that position for ten years. Dr Hagen joined the MCW faculty in 1972 and is a professor of medicine and a professor of pharmacology and toxicology. A native of Chicago, Dr Hagen graduated from the University of Wisconsin Medical School.

Joseph J. Mazza, MD,* a hematologist at the Marshfield Clinic, was recently chosen governor-elect of the Wisconsin Chapter of the American College of Physicians. He will begin a four-year term as governor in 1990, succeeding Paul P. Carbone, MD,* of Madison.

David C. Zablotney, MD, of Racine, recently joined the Racine Medical Clinic. Dr Zablotney, a board-certified general practitioner, graduated from the University of Cincinnati College of Medicine and served a residency at the US Air Force Regional Hospital Eglin at the Eglin Air Force Base in Florida.

Owen B. Keenan, MD, recently joined the Marshfield Clinic medical staff. A specialist in orthopedic surgery, Dr Keenan received his medical degree from the University of South Florida College of Medicine and completed a residency at the naval hospital in Camp Lejeune, NC.

Kurt D. Reed, MD,* recently joined the Marshfield Clinic as a specialist in infectious disease pathology. A native of Brodhead, Dr Reed received his degree from the University of Wisconsin Medical School and completed a residency at Brigham and Women's Hospital in Boston and at the Medical College of Wisconsin.

Luis Diaz, MD, was recently appointed professor and chairman of the department of dermatology at the Medical College of Wisconsin. Dr Diaz was previously with the Johns Hopkins Medical Center in Baltimore.

John Midtling, MD, has been appointed professor and chairman of family medicine at the Medical College of Wisconsin. An expert on the hazards of pesticides, Dr Midtling graduated from the University of Minnesota School of Medicine and has a master's degree in family and community medicine. He is a member of the scientific advisory committee of the National Study of Farm Worker Health.

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Obituaries

William George Arnold, MD, 75, of Green Bay, died Feb 21, 1989, in Green Bay. Born May 2, 1913, in Wittenberg, Dr Arnold graduated from the Marquette University School of Medicine, and served an internship at Poly Clinic in New York City. Dr Arnold practiced in Clintonville until 1987 when he moved to Green Bay. He is survived by his brother, Dr Jack Arnold, of Ripon.

Myra Emery Burke, MD, 93, of Madison, died March 13, 1989, in Madison. Born Feb 20, 1986, in Madison, Dr Burke graduated from the University of Wisconsin School of Medicine–Madison in 1927. Her internship was served at the Research and Education (University of Illinois) in Chicago. Dr Burke had practiced medicine in Kenosha and Kendall before returning to Madison where she practiced for 32 years. She was a member of the Dane County Medical Society, the SMS, and the AMA.

Louis A. Bernhard, MD, 91, former Milwaukee physician, died March 18, 1989, in Key Biscayne, Fla. Born Oct 24, 1898, in Russia, Dr Bernhard graduated from Northwestern University in 1924, and served his internship at Mt Sinai Hospital in Milwaukee. He had practiced in Milwaukee until his retirement in 1978. Dr Bernhard served as president of Northwestern University Medical Alumni Association from 1952 to 1956. He was a member of the American Academy of Family Physicians, the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Charlotte; two sons, Gerson C. Bernhard, MD, Milwaukee, and Victor M. Bernhard, MD, of Tucson, Ariz; and a daughter, Naomi Levinson, of San Francisco.

Eugene W. Lange, MD, 84, Lehigh Acres, Fla, died March 21, 1989, in Lehigh Acres. Born March 19, 1905, in Cedarburg, Dr Lange graduated from the University of Wisconsin School of Medicine-Madison and had practiced in Michigan until his retirement in 1969. Surviving is his widow, Margaret, of Lehigh, Acres, Fla.

Donald R. Wilz, MD, 42, Racine, died March 27, 1989, in Jacksonville, Fla. Born December 29, 1946, in Chicago, Dr Wilz graduated from Northwestern University Medical School, and completed his residency and fellowship in nephrology at the Medical College of Wisconsin in Milwaukee. He began his medical practice at the Racine Medical Clinic in 1977. He was a member of the medical staff at St Luke's Hospital, and St Mary's Medical Center. He also was co-director of the St Luke's hemodialysis unit. Dr Wilz was a member of the Racine County Medical Society, the SMS, and the AMA. Surviving are his widow, Stephanie; two daughters, Jennifer and Katie, and a son, Erich.

Tributes to loved ones can help others

The memorial program of the Charitable, Educational and Scientific Foundation of the SMS offers physicians a unique opportunity to provide a living memorial to a loved one or friend through a gift to the foundation. A memorial contribution can provide financial aid to a needy medical student, help stimulate research on behalf of public health or aid in the preservation of Wisconsin's medical history. When a memorial gift is made to the foundation, the deceased person's family receives a special card with the name of the donor. For more information, contact the foundation staff at the SMS.

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Membership update

The following information is being provided from membership reports and from individual members for updating the 1988 Membership Directory as published in the August 1988 issue of the *Wisconsin Medical Journal*. Because of space limitations, address changes and phone numbers will not be included in this update, although they will be changed in the SMS membership records.

County transfers will be included when processing has been completed by the membership records staff.

Changes in practice specialties (as used by the AMA) and changes in board-certified specialties as listed by the American Board of Specialties (see August 1988 Membership Directory) are included. Practice specialties appear before the slash (/) and board-certified specialties appear after the slash.

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1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.

2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.

3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS.**

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following.

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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Thompson, MD, Lee H.
8200 N Teutonia
Milwaukee, WI 53209
PD

Timm, MD, Mark A.
2616 N Frederick, #315
Milwaukee, WI 53211
GS

Toorkey, MD, Behnaz C.
8700 W Wisconsin Ave
Milwaukee, WI 53226
PTH

Toussaint, MD, John S.
820 E Grant St
Appleton, WI 54911-3478
IM

Tracy, MD, Elizabeth A.
628 S 60th Street, #10
Milwaukee, WI 53214
IM

Troshynski, MD, Todd
4718 W Medford
Milwaukee, WI 53216
PD

Turbett, MD, Elizabeth A.
2400 W Willard Ave
Milwaukee, WI 53209
FP

Turbett, MD, James A.
2400 W Villard Ave
Milwaukee, WI 53209
FP

Urban, MD, Michelle E.
2132 S 107th St
West Allis, WI 53227
PD

Van Raalte, MD, Benjamin A.
3507 Leatherbury
Indianapolis, IN 46222
PS

Vanags, MD, Bruno T.
2536 N 124th St, #265
Wauwatosa, WI 53226
EM

Vartabedian, MD, Robert
2320 Parklawn Dr, #211
Waukesha, WI 53108
IM

Vetsch, MD, Raymond
5050 S 20th St
Milwaukee, WI 53221
GS

Veytsman, MD, Anna-Maria
1247 N 86th St
Wauwatosa, WI 53226
AN

Wakuzawa, MD, Wynn T.
5188 N Lovers Lane, #11
Milwaukee, WI 53275
EM

Weiland, MD, Stephen W.
919 Glenview Ave, #4
Wauwatosa, WI 53213
PS

Weinshel, MD, Steven S.
4916 N Shoreland
Milwaukee, WI 53217
NS

Weitekamp, MD, Lee Ann
8700 W Wisconsin
Milwaukee, WI 53226
PTH

Werner, MD, Linda J.
1006 N Walnut
Marshfield, WI 54449
FP

White, MD, John H.
315 S 65th St
Milwaukee, WI 53214
GS

Whitman, MD, John C.
224 Park Drive
Plover, WI 54467
EM

Wiedmeyer, MD, Debra A.
2658 N 61st St
Milwaukee, WI 53213
DR

Wilhelm, MD, David M.
409 Spruce St
River Falls, WI 54022
FP

Will, MD, Brian R.
1330 Dover Place
Brookfield, WI 53005
OPH

Wilson, MD, Donald J.
3038 N 54th St
Milwaukee, WI 53210
AN

Wilson, Pamela A.
1552 University Ave, #214
Madison, WI 53705
IM PUD/IM

Wilson, MD, Stephen B.
4901 S 92nd St
Greenfield, WI 53228
PUD

Wissing, MD, Marcia L.
6125 W Hustis St
Milwaukee, WI 53223
OBG

Woodson, MD, B. Tucker
2414 Kohler Memorial
Sheboygan, WI 53081
OTO

Yassin, MD, Mona
11438 W National, #11
West Allis, WI 53227
PD

Yenerich, MD, David O.
13405 Burleigh Road, #202
Brookfield, WI 53005
DR

Young, MD, Vicky L.
929 N Astor, #2505-7
Milwaukee, WI 53202
OBG

Yue, MD, Jeffrey C.
13400 W North Ave
Brookfield, WI 53005
AN

Zandt-Stastny, MD, Debra A.
12625 Verona Drive
New Berlin, WI 53151
DR

Zarkower, DO, Alan R.
5310 W Capitol Drive
Milwaukee, WI 53216
AN/AN

Zavaras-Angelidou, MD, Katerina A.
618 N 90th St
Milwaukee, WI 53226
PD

Zavitz, MD, William R.
2650 N 63rd St
Wauwatosa, WI 53213
DR

Zerrien, MD, David W.
3819 N Oakland Ave, #2
Milwaukee, WI 53211
P

Zimmerman, MD, Robert C.
3509 Hidden Valley
Green Bay, WI 54301

County tranfers

(From Milwaukee to Washington)
Bain, MD, Philip A.
607 S 8th Ave
West Bend, WI 53095

Fahey, Jr, MD, Norbert J.
1803 Stonebridge Rd, #1
West Bend, WI 53095

Lindsey, MD, Stephen M.
13860 Fairfield Court
Elm Grove, WI 53122

Preisler, DO, Gary L.
PO Box 26
Jackson, WI 53037

(From Milwaukee to Rock)
Olson, MD, Susan J.
903 Suffolk Road
Janesville, WI 53546

(From Door-Kewaunee to Winnebago)
Regehr, MD, Edward H.
323 Jefferson Ave
Omro, WI 54963

(From Kenosha to Milwaukee)
Vandervort, MD, Glenn E.
1014 N Astor St
Milwaukee, WI 53202

(From Waukesha to Walworth)
Hearn, MD, Richard F.
2368 Quail Hollow Ct, #C
Delafield, WI 53018

(From Dane to Waukesha)
Milbrath, MD, Mary M.
W296 N2180 Glen Cover
Pewaukee, WI 53072

(From Waukesha to Milwaukee)
Moss, MD, Sheryl L.
10625 W North Ave, #222
Milwaukee, WI 53226

(From Milwaukee to Sheboygan)
Stillwell, MD, Scott M.
904 N 9th St
Sheboygan, WI 53081

(From Manitowoc to Brown)
Schroeder, II, MD, Norman J.
3175 Open Gate Trail
Green Bay, WI 54313

(From Washington to Brown)
Sonneland, III, MD, Arthur M.
2378 Old Plank Road
De Pere, WI 54115

(From Dane to Milwaukee)
Stoeckl, MD, Joseph
8402 W Stickney Ave
Wauwatosa, WI 53226

Stoiber, MD, Thomas R.
10400 Fond du Lac, #8
Milwaukee, WI 53224

Uebelacker, MD, Carol J.S.
1214 N Hawley Road
Milwaukee, WI 53208

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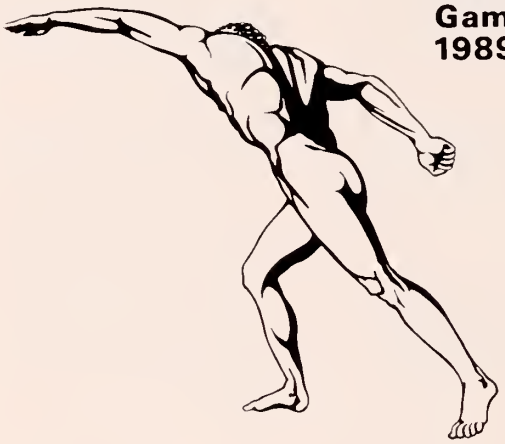

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California. Outstanding practice opportunities for medical directors, primary care and specialist physicians too numerous to mention in disciplines of OB/GYN, allergy, family practice, pediatrics, pulmonary disease, invasive and non-invasive cardiology, otolaryngology, gastroenterology, neurology, orthopaedic surgery, neurosurgery, and urology. As retained consultants to more than twenty-five hospitals, group practices, and HMOs in northern and southern California, we can discuss each practice in detail. Please call or send CV for additional information. Complete confidentiality assured. Contact Ken Baker at 415-981-7424 (collect). Physician Search Group, 50 California St, Suite 400, San Francisco, CA 94111. 6/89

West Bend, Wisconsin. Seeking full-time and part-time emergency department physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation, malpractice insurance provided and benefit package provided. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p6/89

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-man expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact D. L. Lawrence, Medical Director at Sharpe Clinic, SC, 92 East Division St, Fond du Lac, WI 54935. Phone number 414-921-0560, collect. p3–8/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

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DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg,* copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Lake Winnebago, Wisconsin area. Seeking director, full-time and part-time emergency physicians for low volume 60-bed hospital. Attractive compensation, full malpractice insurance coverage and benefit package available. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p6/89

FP–IM: Minnesota. Group of board-certified family physicians seek internist and family physician for partnership. Excellent opportunity, compensation, and benefit package. Family oriented community with outstanding quality of life, educational and recreational facilities, and easy access to metro area. Contact: Mary Jo Cordes, MDsearch, PO Box 16458, St Paul, MN 55116. p6/89

Retired physician seeks locum or part-time work, preferably rural area. Available on short notice. Phone 715-667-3654. 6/89

Internist. Immediate need for two (2) board-certified or eligible internists with some cardiology experience. We offer an outstanding guaranteed package with new offices. Financially strong, very progressive fifty (50) bed JCAH hospital with twenty-four (24) hour ER physician coverage. Located in the foothills of the Ozarks. New radiology and twelve (12) bed ICU/CCU opening May 1, 1989. Excellent climate, very progressive city of fifteen thousand (15,000), without an internist in the county of thirty-two thousand (32,000) people. Area consists of fifty (50) percent industry, and fifty (50) percent agriculture. Very strong economy, excellent schools, very low taxes, including low property taxes. For more information, please call or write to Nolan O. England, administrator, c/o Dexter Memorial Hospital, 1200 N. One Mile Rd, PO Box 279, Dexter, MO 63841, or phone 314-624-5566. 6/89

Immediate opening. One internist and one general practitioner at a 250-bed acute treatment psychiatric hospital, JCAH approved, Medicare Certified, affiliated with the University of Iowa Medical College. *Forty-hour work week. No night of weekend on call.* Situated in picturesque northeast Iowa near large cities with cultural advantages. Ideal for family living. Golf club, hunting and fishing area, good schools, etc. Salary to $81,016. State law protects employees against malpractice. State pension plan. Unique deferred annuity plan. Generous sick leave and vacation. Write of call collect: B. J. Dave, MD, Superintendent, Mental Health Institute, Independence, IA 50644. Phone: 319-334-2583. An Equal Opportunity/Affirmative Action employer. 5–6/89

Family practitioner. Immediate need for family practitioner board-certified or eligible. We offer an outstanding guaranteed package with new offices. Financially strong, very progressive fifty (50) bed JCAH hospital with twenty-four (24) hour ER physician coverage. Located in the foothills of the Ozarks. New radiology and twelve (12) bed ICU/CCU opening May 1, 1989. Excellent climate, very progressive city of fifteen thousand (15,000), thirty-two (32,000) in the county. Area consists of fifty (50) percent industry and fifty (50) per cent agriculture. Very steady economy, excellent schools, very low taxes, including low property taxes. For more information, please call or write Nolan O. England, administrator, c/o Dexter Memorial Hospital, 1200 N. One Mile Road, PO Box 279, Dexter, MO 63841, or phone 314-624-5566. 6/89

Minneapolis—BC/BE family practitioner or other specialty with emergency room experience sought for the urgent care department of a large multi-specialty group in desirable Twin Cities location. Our medical clinic is a highly reputable, well-established clinic that has been in existence for over 38 years. Salary and benefits are highly competitive. Regular work week expectation without night call or hospital obligation. Send CV and letter of inquiry to Patrick Moylan, Park Nicollet Medical Center, Minneapolis, MN 55416. 6–7/89

Family practice opportunity. The University of Illinois College of Medicine at Rockford is developing a family practice group in a northern Illinois community. Major midwestern cities and recreational areas within driving distance. University and local hospital will provide all facilities, staff, and business systems to support successful practice. Outstanding opportunity for professional fulfillment, community involvement, and personal recognition. Faculty appointment, exceptional university benefits and salary guarantee. Inquiries/CVs to Dr L.P. Johnson, Department of Family and Community Medicine, University of Illinois College of Medicine at Rockford, 1601 Parkview Ave, Rockford, Ill 61107. The University of Illinois is an Equal Opportunity Employer. 6–7/89

Antigo, Wisconsin. Seeking director, full-time and part-time emergency physicians for low volume facility located in sportsman's paradise. Excellent compensation and paid malpractice insurance. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p6/89

Physicians Exchange

continued

Family practice physician BE/BC, needed to provide primary outpatient care in a free standing student health service with its own lab facilities for a student population of 11,000 at the University of Wisconsin–Eau Claire. Attractive salary and fringe benefit package, including malpractice insurance. Contact: Shelley Bratholdt, RNC,ANP, Director of Health Services, University of Wisconsin–Eau Claire, Eau Claire, WI 54701; phone 715-836-4311. EEO/AA. 6/89

Part-time challenges await you with one of the world's best trained health care systems. As a member of the Wisconsin Army National Guard you will be appointed as a commissioned officer. You will be eligible for benefits such as paid CMEs, free air travel, exchange and commissary privileges, along with retirement annuity. You may also qualify for the Health Professional Loan Repayment of $3,000 per year to a total of $20,000. For just 16 hours a month plus two weeks a year, you can become a member of a special organization of talented colleagues working together, exchanging ideas, solving problems, and strengthening your community. For more information contact Major Robert Klinger at 608-241-6367 or 241-6431 or at 3506 Memorial Drive, Madison, WI 53704-1199. Toll-free 1-800-362-7444. 6–7/89

Emergency medicine–Dubuque. Opening available for qualified individual to join incorporated group of three BE/BC emergency physicians. Unique and enjoyable practice, excellent compensation, complete career opportunities, and highly livable community. Write NET,PC, c/o Mercy Health Center, Emergency Department, Dubuque, IA 62001, or call Mark Singsank, MD; ph 319-589-9666. p6–8/89

Family practice—Hospital sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful northcentral Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to and benefit package which is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Dr, Bloomington, MN 55435; ph 612-835-5123. 5–7/89

Family practitioner to join three physician group in Lake Mills on Interstate 94 and beautiful Rock Lake in southern Wisconsin. Resort area. Competitive salary and fringe benefits. Contact H. Leering, MD, 120 E Oak St, Lake Mills, WI 53551; ph 414-648-2391. p6–10/89

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700. 12tfn/88

General surgeon (BC/BE) to join general surgeon and seven family practitioners. East Central Wisconsin, 100,000 service area, excellent 220-bed hospital. Vascular experience desirable. Competitive first year salary with incentive. Stockholder status available after one year. Contact: Robert Templin, Administrator, Associated Physicians of Fond du Lac, Ltd, 505 E. Division St, Fond du Lac, WI 54935. p4–6/89

Internist. Southeastern Wisconsin community of 18,000 needs a BC/BE internal medicine specialist. Community located midway between Milwaukee and Madison, offers advantages of small town living, and close distance to the cities. JCAH accredited 100-bed modern hospital with medical office building adjacent. Excellent medical staff. 30,000+ hospital service area. Presently, two internists with one approaching retirement. Financial and planning support in development of practice available. For more information contact: Leo Bargielski, president, Watertown Memorial Hospital, or Edward J. Hoy, MD, 125 Hospital Dr, Watertown, WI 53094; ph 414-261-4210. p6/89

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multi-specialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Stuart R. Lancer, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. c4;p5–7;8–10/89

Ophthalmologist. The Ashland Eye Clinic, SC, a busy, well-established medical-surgical practice in Ashland, Wisconsin, is seeking a general ophthalmologist. Competitive salary, bonus and excellent benefits. Partnership in one year if mutually compatible. Please send resume to Dr Ken Morrow, PO Box 233, Ashland, WI 54806, or telephone him or Dr John Doty during the day at 715-682-4515, or evenings after 7 pm at 715-682-8146 (Dr Morrow) or 715-682-9298 (Dr Doty). 4–6/89

General surgeon (BC or BE) to associate with a busy surgeon in general, vascular, and endoscopic practice serving two hospitals. Competitive salary and fringe benefits with early partnership. Send CV to Badri N. Gaju MD, FACS, 451 E. Brooklyn, Chilton, WI 53014. p4–6/89

Northern Wisconsin

Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

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- Internists

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7–12/88;1–6/89

Physicians Exchange

continued

Pediatric partner needed. Small town atmosphere, populous drawing area. National honors school. University town, 50 miles from Chicago. Economics, greatest per capita income in state. Malpractice, lowest rates in nation. Pediatric practice, 25 years, still expanding. Office is spacious suite in 4-year-old medical building, other specialties associates, lab and x-ray. Near all-service hospital with superior neonatal unit. Send CV and practice goals to: Thomas J. Covey, MD, FAAP, 2101 Comeford Rd, #3, Valparaiso, IN 46383. p5/89;6-7/89

Seymour Family Medicine looking for second BC/BE family physician for rapidly growing clinic practice in small town 20 minutes from Green Bay and Appleton hospitals. Four-member FP call coverage; on-site lab, x-ray, OP rehab in new facility. Salary guarantee, excellent benefits, practice management assured. Send CV or call Shirley Mielke, Seymour Family Medicine Clinic, 958 Foote St, Seymour, WI 54165; 414-833-2318. 5-7/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Madison, Wisconsin. Family practice physician to join our dynamic multi-specialty clinic. Guaranteed salary, profit sharing, excellent fringe benefit package. Send CV to L. C. Bernhardt, MD, Chairman, Recruiting Committee, Dean Medical Center, 1313 Fish Hatchery Rd, Madison, WI 53715. An Equal Opportunity/Affirmative Action Employer. 5-7/89

Beloit Clinic, SC, an expanding multi-specialty group in southern Wisconsin college town is seeking an orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J.F. Ruethling, Administrator, 1905 Huebbe Parkway, Beloit, WI 53511; 608-364-2200. 5-7/89

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

Gastroenterologist-internist to take over successful established practice in Fond du Lac, July 1989. Will be the only gastroenterologist within a 20-mile radius, equivalence of approximately 100,000 population. Contact E. B. Horn, MD, 481 E Division St, Fond du Lac, WI 54935; ph 414-923-5555. p3-6/89

Family practice (BC/BE) Northwest Missouri community offering the best of both worlds—lucrative practice and carefree country living. Modern clinic owned and managed by hospital. Guaranteed salary, plus benefits, paid insurance, CME allowance and all moving expenses. Back-up coverage. Scenic area provides abundant recreational activities and easy access to metropolitan Kansas City, Mo. Send CV to Carolyn Messner, Director Physician Services, College & Clarks Sts, Albany, MO 64402 or call 816-726-3941 collect. p4-6/89

Family practice (with emphasis on urgent care and/or occupational medicine BC/BE to join established 55-physician multi-specialty group located in the Milwaukee, Wisconsin area. Competitive salary and excellent fringe benefits. Address inquiries and CVs to: James Wrocklage, Medical Associates, PO Box 427, Menomonee Falls, WI 53051. p5-7/89

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Eagle River—Great opportunity for two BC/BE family practice physicians to join well-established practice. Guaranteed annual income and future partnership available. For more information, send resume to Judy Harris, Recruiter, UW Office of Rural Health, 810 University Bay Dr, Madison, WI 53705 or call collect 608/263-7933. 1tfn/88

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

Family practitioner (BC/BE) wanted to join 12-physician multi-specialty group in central Wisconsin community of 30,000 located on the Wisconsin River. Competitive salary and fringe benefits. Send CV to Administrator, Doctors' Clinic, SC, 1041 Hill St, Wisconsin Rapids, WI 54494; ph 715/423-0122. p4-6/89

Internist (BC/BE) to join three board-certified internists in a 12-member multi-specialty group in a central Wisconsin community of 30,000 located on the Wisconsin River. Competitive salary and fringe benefits. Send CV to Administrator, Doctors' Clinic, SC, 1041 Hill St, Wisconsin Rapids, WI 54494; ph 715/423-0122. p4-6/89

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Wisconsin. Recent opening for ambulatory care physician in southeastern Wisconsin. Interested individuals should reply with CV to Dept 625 in care of the Journal. 6/89

Northern Wisconsin
Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

General surgeon, BC/BE w/thoracic and/or vascular interest to replace surgeon in eight-member group in SE Wisconsin. Competitive salary and benefit package. Partnership after one year. Send CV and brief letter of expectations to Oakbrook Family Physicians SC, 1201 Oak St, West Bend, WI 53095. p6-8/89

Physicians Exchange

continued

For Sale. Internal medicine practice suburban metro Milwaukee, Wisconsin. Well-established growing IM practice in great location, near hospital. Tremendous opportunity for dynamic person to purchase goodwill, patient records, medical equipment and possibly A/R. Excellent coverage. Contact: Barton-Collins, Ltd, 9401 W Beloit Road, #313, Milwaukee, WI 53227; ph 414-541-6099. 6-7/89

Unsecured signature loans for physicians, $5,000 to $60,000. Use for any purpose including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments. Up to six years to repay. No prepayment penalties. Call 1-800-331-4952, Medi-Versal, Department 356. 5tfn/89

Medical Meetings—Continuing Medical Education

June 21–13, 1989: Wisconsin Academy of Family Physicians, Radisson Hotel, La Crosse. g6/89

July 20, 1989: "Current Concepts in Trauma Care: Pediatrics and Pregnancy" at Paper Valley Hotel, Appleton. One-day symposium sponsored by Theda Clark Regional Medical Center. Topics include pediatric trauma care in the United States, prehospital stabilization of pediatric trauma victim, emergency department resuscitation, pediatric emergency procedures, pediatric chest and abdominal trauma, trauma in pregnancy and peri-mortem cesarean section. Faculty are nationally renowned experts in the field of emergency medicine, pediatrics and traumatology: William Buntain, MD (Tennessee), Joan Burg, MD (Boston), Martin Eichelberger, MD (Washington DC), Cloyd Gatrell, MD (Washington), Sally Korth, RN (Michigan), Rick Miller, MD (Illinois). Nominal Fee. Lunch provided. Chairperson: Wendy A. Witt, MD. Information: Call 414-729-2114 or 1-800-922-4551. 6/89

July 20–22, 1989: Wisconsin Society of Obstetrics & Gynecology 1989 Annual Meeting, at Radisson Hotel, La Crosse. Info: WSOG, 850 Elm Grove Rd, Elm Grove, WI 53122. g1-7/89

July 27–29, 1989: Critical Care Update '89, sponsored by Berlin Hospital Association, at Heidel House Conference Center, Green Lake. Info: Berlin Hospital Association, Medical Conference 225 Memorial Dr, Berlin, WI 54923; ph 414/361-1313, ext 264. g4-7/89

September 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. g6-8/89

September 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay. g6-8/89

August 2–6, 1989: International Doctors in Alcoholics Anonymous annual meeting, at the Marriott Rivercenter Hotel, San Antonio, Tex. Info: IDAA, 7250 France Ave, S, Suite 400C, Minneapolis, MN 55435. g6-7/89

AMA

JUNE 18–22, 1989: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 3–6, 1989: Interim House of Delegates, Honolulu, HI.

JUNE 24–28, 1990: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 2–5, 1990: Interim House of Delegates, Orlando, FL.

Berlin Hospital Association

Conference: Critical Care Update '89

Thursday–Saturday, July 27–29, 1989
Heidel House Conference Center
Green Lake, WI

Held at the beautiful Heidel House Resort on Green Lake, the conference is scheduled to coincide with the Experimental Aircraft Association (EAA) Convention in Oshkosh, located just 25 miles away. Transportation to the famous EAA Convention is available from the Heidel House.

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Medical Conference
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(414) 361-1313, ext. 264

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United States Army Reserve 17
University of Wisconsin Hospital and Clinics 35
Wisconsin Shakespeare Festival 41

Orthopedic Conference:
New Perspectives in Pediatric Orthopedics, An Update

October 5–7, 1989

Landmark Resort, Egg Harbor, Wisconsin

Speakers:
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- Alvin H. Crawford, MD, Cincinnati, OH
- Paul Esposito, MD, Omaha, NE
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VASOTEC®

(ENALAPRIL MALEATE | MSD)

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema.* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension. Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia. Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies in pregnant women. VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 298 patients.

Hypertension: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

Heart Failure: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest, pulmonary embolism and infarction, rhythm disturbances; atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION), prostate hypertrophy.

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J6VS18R(815)

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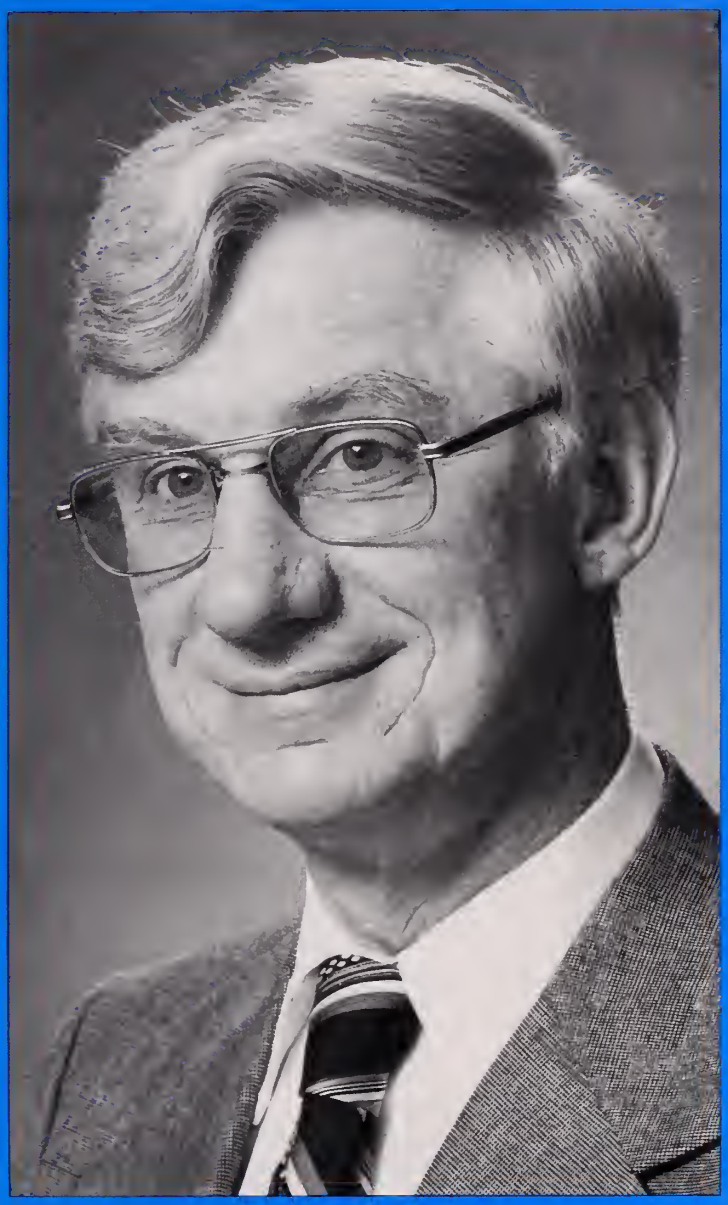

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July 1989

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July 1989 Vol. 88 No. 7

Contents

Opinions

Editorials

5 Lyme hysteria
by Richard D. Sautter, MD, *medical editor*, Marshfield

Letters

6 Soundings article wins praise
by Frederick W. Blancke, MD, Madison

6 Observations of the liability crisis
by Ayaz M. Samadani, MD, Beaver Dam

Special

8 Passive euthanasia and dying with dignity
by William B. A. J. Bauer, MD, Ladysmith

Annual meeting

11 Actions of the SMS House of Delegates

16 House of Delegates: 1989

18 *Presidential report:* The appearance of the bull changes . . .
by J D Kabler, MD, Madison

19 *Address of the president-elect:* Charting the course for 1989–1990
by William L. Treacy, MD, Milwaukee

22 *Secretary's speech:* Carrying medicine's banner into the tort wars
by Thomas L. Adams, Madison

24 SMS bestows honors

30 *Fifty Year Club:* Reflections on 50 years of medicine
by William B. A. J. Bauer, MD, Ladysmith

Organizational

33 SMS officers and directors: 1989–1990

45 Constitution and Bylaws

55 Charter law

56 Commissions and committees: 1989–1990

65 Expense reimbursement policy

66 Summary of SMS policies

68 Board of Directors and districts: 1989–1990

70 Financial report

72 Membership facts

74 Officers of the SMS specialty sections

77 Officers of Wisconsin's county medical societies

82 Officers of Wisconsin's specialty societies

85 WISPAC and Physicians for Better Government

86 SMS resource directory

90 Physician support group

91 Mediation and peer review services

91 The WIPRO review process

93 Impaired physician program

96 Accreditation of continuing medical education

95 Physician placement services

97 Introducing the new SMS assistant secretary

98 Publications and reprints available

Contents

CES Foundation

99 Foundation news
100 The Beaumont 500
101 A guide to giving
102 Foundation facts
103 Beaumont Lecture Award
103 Houghton Award
105 Elvehjem Lecture Award
105 The history of the CES Foundation

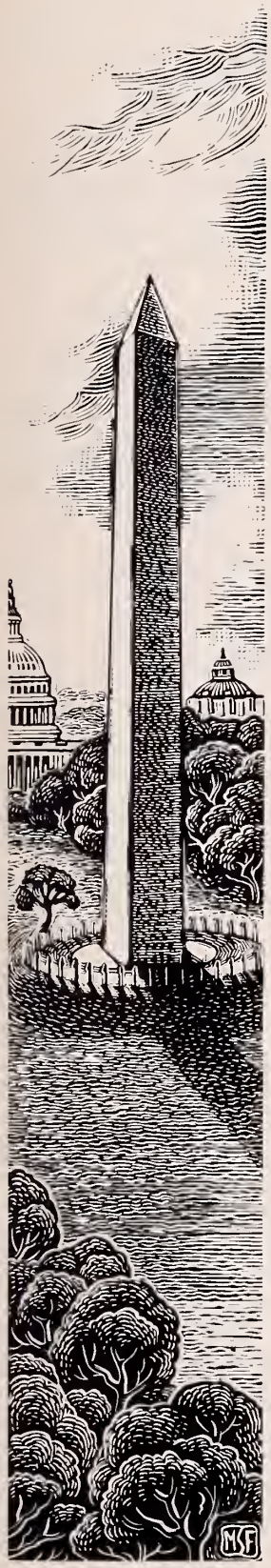
Information and regulations

107 PIC–Wisconsin: state of the corporation, 1989
108 Current issues in brief
111 Medical liability insurance in Wisconsin
113 Wisconsin's medical mediation panels
114 Unprofessional conduct
115 Physician licensure and verification
116 Medical records
120 Charging for medical records
121 Consent and related forms
126 Important definitions regarding consent law
128 Wisconsin information clearinghouse
129 Parking privileges for the disabled
132 Reporting communicable diseases
134 An overview of worker's compensation
134 Living wills
135 Living will form
138 Contesting worker's compensation charges
139 Reporting induced abortions
139 Return to work recommendations
140 Return to work recommendation form
141 Crime victim compensation
142 Narcotics registration
143 Adoption in Wisconsin
143 How to get health information
144 Wisconsin's government agencies

AIDS and HIV

149 Testing and reporting of AIDS and HIV
152 OCI rules
152 Wisconsin's AZT reimbursement program
153 HIV test consent form
156 Information and testing sites
161 Wisconsin's partner referral program
163 AMA policy on treating AIDS patients

Our cover: SMS President William L. Treacy, MD, (left) and President-Elect Roger L. von Heimburg, MD, (right).



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Editorials

Lyme hysteria

THE AMOUNT OF MEDIA attention recently given to Lyme disease has created concern bordering on hysteria in some Wisconsin communities, a windfall for insect repellant manufacturers, and an extraordinarily high volume of serological testing for the presence of antibodies to the spirochete. These turns of events are disturbing to Willy Burgdorfer, MD, PhD—the man who discovered the Lyme disease-causing organism that now bears his name, *Borrelia burgdorferi*—with whom I had the pleasure of speaking at a Lyme disease seminar in Madison, June 6 and 7.

In 1988, the Wisconsin Division of Health reported 56,000 serologies were performed for the detection of Lyme disease. While probably underreported, only 246 patients met the criteria for the positive diagnosis suggested by the Centers for Disease Control. Serological testing for Lyme disease is unnecessary for diagnosis *if* the characteristic cutaneous manifestation (erythema migrans) is present. These patients should receive prompt antibiotic therapy. Testing is unnecessary because in the first week of the disease, only 13% to 17% of the patients test positive. In the third week of the illness, this percentage increases to 22% to 27%, but still most patients remain serologically negative in spite of pathognomonic signs of Lyme disease.

There are many patients who do not have the cutaneous manifestations of Lyme disease in which serological testing may be helpful when combined with the history of living in an endemic area (nearly all of Wisconsin) and symptoms of other organ systems involved, ie, muscoskeletal, cardiac, and central nervous system. To be helpful in deducing whether to treat a patient, the Lyme titer should be over 1:256 (this may vary according to individual laboratory standards).

However, patients having a titer of above 1:256 and symptoms of general malaise, exhaustion, or weakness, may not have the disease. Their seropositivity may simply reflect previous exposure to *B burgdorferi* that resulted in an asymptomatic infection.

More sensitive and specific techniques for identifying active spirochetal infection are necessary (ie, gold standard). Work is under way in sequencing the genetic material (DNA) of the *B burgdorferi* which may lead to a very definitive diagnostic test using modern tools of molecular biology such as monoclonal antibodies and the polymerase chain reaction.

Dr Burgdorfer indicated that there are several laboratories working on this approach and predicted that the rest will be available in the near future. Until then, a large number of the 56,000 serological tests conducted in Wisconsin last year place most patients in the "we really don't know" category for diagnosis of Lyme disease.

Patients and physicians alike are greatly indebted to Dr Burgdorfer, not only for his contributions to the knowledge of this disease, but also for his concern for the appropriate use of such knowledge by the scientific community and the public.

The second meeting of the Lyme Disease Consortium was also held during this seminar. This consortium is made up of persons, from various disciplines and institutions, who have interest in Lyme disease. The intent of the consortium is to pool information regarding treatment, diagnosis and research and then inform the interested public of this work and the progress being made. This approach shows promise.

—Richard D. Sautter, MD
medical editor

Correction

The meaning of a portion of Dr Jeffrey Lamont's editorial *The importance of parenting* in the June issue of the *WMJ* was inadvertently altered in editing. In his discussion of the Cub Scout Pinewood Derby and the disadvantages of single-parent homes, Dr Lamont wrote: "I suspect that few, if any, of the mothers of these boys lacked the skills necessary to help their sons turn out first-rate cars. What these mothers lacked instead, if overheard conversations can be trusted, was access to tools, time and money." The first sentence appeared, instead, as "I suspect that few, if any, of the mothers of these boys possessed the skills . . ." The *WMJ* regrets the error.

Letters

Soundings article wins praise

TO THE EDITOR: Please share with the *WMJ* Editorial Board my pleasure in reading the March issue. I'd like to particularly compliment Dr Douglas S. Diekema for his *Soundings* article "Bits and pieces." It was appropriate and timely. I wish more of our medical students, interns, residents, and practicing physicians would write sensitive articles in *Soundings*.

The issue here is the continuous stress of our medical practice and in dealing with serious accidents, family crises, death and dying, etc. These tragedies have a deep impact on us. As Dr Diekema wrote: "I sip my coffee and start the car. I want to cry yet find myself unable to do so. Besides, there is really not time for tears. I'll have patients waiting in the clinic."

It is refreshing that a third-year resident shares his feelings with physicians. I want you to know that I have felt as he felt—so many times there was, for me, "no time to cry." Knowing as much about psychology and psychiatry as I do now, I force myself to take time to share these feelings. Bottling the tears is a sure road to professional incompetency or impairment.

Please ask Dr Diekema to continue writing in *Soundings*. I love it.

—Frederick W. Blancke, MD
Madison

Observations of the liability crisis

TO THE EDITOR: The words "malpractice" and "medical practice" are synonyms these days. They go hand in hand. When I started my practice in the United Kingdom, malpractice was a bad word. This was in the early '60s, and I recall the premium for such insurance being only $70 a year. Any complaint against a doctor's diagnosis or treatment was referred to a council. The council was made up of senior physicians who were experts in their fields and lay person. The council's decision was binding on the parties to the dispute. Court cases were rare; awards were unheard of.

I used to read about the United States and the malpractice awards given. When I came here in the late '60s, I had to get insurance against such perils. I was astonished by the difference in the premium costs. In the late '70s, this premium became a crisis for the profession, and in the '80s, some physicians decided to retire early or dropped a certain service to be able to continue practicing.

I see certain reasons for such skyrocketing malpractice insurance premiums. If doctors and legislators meet with leading medical associations, they can work out a solution. These are a few of my ideas:

- Health problems and their solutions should be tackled at the federal level, not the state. Generally, health problems do not vary from state to state.
- Mediation panel decisions should be binding, otherwise these panels defeat their own purpose.
- Contingency fee charging should be abolished by congressional legislation.
- The witnesses against doctors in court should not be called professionals. Professionals do not earn their livings by testifying in court.
- Allocate a ceiling on the awards so that the judiciary has some guidance prior to passing the judgment.

The establishment of these five points will encourage the practice of normal medicine rather than defensive medicine.

—Ayaz M. Samadani, MD
Beaver Dam

Opinion policy

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To live or not to live? To do or not to do? These are questions the patient, the relatives, and physician must ask themselves. What rights does the patient have to die in peace? To die with dignity? Spouses, parents, sons, and daughters: What can they do to prevent unnecessary suffering and unwarranted prolongation of life? And what is the proper role of the physician?

Philosophical, religious, cultural, medical, and social considerations are all tied up in arriving at a specific decision. What is really best to do? Who among us would play God? Is the patient in a truly terminal phase of illness? If a decision is made to let a patient die, honestly believing this is best, will that decision be more easily made—and perhaps less carefully made—the next time? Will the decision be unduly influenced by sympathy for the patient?

On the other hand, in the fear of playing God, of making a judgment of life and death, will we permit some patients to suffer an endless procession of agonizingly painful days and nights, and some families to watch this interminable suffering of their loved ones? There are already many cases where a husband or wife felt obliged to stop their spouse's suffering by cutting off life support systems or even taking more drastic action. Are these truly acts of murder or acts of mercy activated by love?

Joshua Livingston was a lumberjack of prodigious proportions. His hands, arms, legs, chest, and neck were huge. He enjoyed crushing the hands of anyone foolish enough to place their hand in his. Yes, he was an enormous man with a reputation for such strength that few men had the audacity to cross him. Even when in his 60s his powerful frame remained a hallmark of his lumberjack days and prevented many a man from confronting him.

Joshua was 64 when cancer assailed him. At first, he paid little attention to the initial warnings. His appetite failed him, his zest for life evaporated, and he just didn't seem to care. His wife finally brought him in for medical attention.

"Joshua is not himself," she said. "He's been this way for two or three months."

"I'm all right," Joshua rumbled in his deep voice. "Just off my feed."

"Yes, and crankier than you have ever been. And, Dr Bill, he's lost an awful lot of weight."

Even though I hadn't seen Joshua for several years, it was obvious that he had lost weight. His cheek bones were more prominent, his eyes more deeply set, and in most places his skin hung loosely. A sallow complexion had replaced his usual ruddy color, and a wan look his usual "I am master of all" appearance.

Joshua had cancer of the liver that had already spread widely and within a week made hospitalization necessary. But even in the hospital there was little that could be done for this once unusually strong man and his very concerned wife, except to comfort them and to relieve the pains that rapidly spread throughout Joshua's frame—pains that even this macho man could not tolerate.

For three months he lay in bed unable to do anything for himself; during the last month his only source of nourishment was intravenous feedings given at the insistence of two sons who did not share their mother's request not to use heroic means of life support. Joshua was a pitiful sight. His large frame, once superbly covered with 250 pounds of flesh, was reduced to a skeleton of less than 100 pounds. Daily, his wife tortured herself to view this skeleton with his hollow, unseeing eyes and his ever-open, unspeaking mouth with the full realization that nothing could be done for this husband of 40 years, and not knowing when his misery would end.

Many similar tragic cases come to mind, when the human heart agonized to make the proper decision but feared to play God, when the human heart was torn asunder by the battle to satisfy cultural, religious, medical and social customs—the battle that has never yet been won, for there are no easy answers.

There are too many questions that hunger for answers. We put a dog out of its misery, but watch a loved one suffer. We don't want the dog to suffer; we also don't want our loved one to suffer, but the forces of cultural, religious, medical and social customs influence us. Does our culture accept the shutting off of all life-sustaining equipment? Does our religion permit the discontinuance of this equipment? Is the doctor certain our loved one's condition is terminal—that there is no hope? In the final analysis, we all must ask ourselves, "Am I ready to make such a decision?"

But there is much more to be taken into consideration. If society appears ready to accept the concept of removing all life-sustaining efforts, under

Continued on page 10

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Continued from page 8
what circumstances? And who will make the final decision? And who will justify it? If such decisions become accepted, will they become accepted with such ease that there will be no soul-searching, that such decisions will open the door to greed and fraud? Will there develop such laxity in making these decisions that it may lead to extermination of those no longer able to contribute—the handicapped and the infirm and the elderly?

There are no simple answers and we should not expect them, for whether to remove all life-sustaining efforts is not a simple question and deserves our most thoughtful consideration. Making such a decision is intrinsically tied up with all the gains man has made in developing tolerance and compassion for the underdog, the less fortunate, the invalid, the aged, the infirm. Without a substantially responsible method of making such a decision, society could lose those humanitarian gains that men have fought and died for and return to its survival-of-the-fittest pattern of life. With certainty, we should seek an appropriate answer to prevent unnecessary suffering, particularly the long-term suffering of those with terminal disease. But with equal certainty, we should not lose the strides mankind has made in tolerance and compassion over the centuries. In trying to ease the suffering of the terminally ill and allowing them to die with dignity, we are exercising compassion, but we can be trapped into creating a monster that permits careless decision making and even wanton extermination as was done by the Nazis.

It seems warranted to suggest that committees on dying with dignity be established in sufficient numbers to properly serve all areas of each state. Out of the pool of each state's physicians and lawyers, two of each would be selected on a rotating basis as the need arises. Each county judge would act to help select four local citizens, following the usual custom for selecting a jury, to complete the committee. The eight committee members would be called to make the final decision, but the relatives could make their desires known at a hearing of such a committee, which could also be attended by the family's physician and pastor.

Does this seem like a lot of trouble? We go to a lot more trouble to quibble over property rights. Certainly the right to sustain life and the right to die in peace with dignity deserve equal consideration.

—William B. A. J. Bauer, MD
Ladysmith

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Actions of the SMS House of Delegates

The House of Delegates during the 1989 annual meeting considered 23 resolutions, two constitutional amendments, and a number of reports from officers, the Board of Directors and SMS commissions and committees. A summary of the House's actions follows. The resolutions and reports were distributed to delegates, alternates, and county medical society officers, and brief summaries of the resolutions were published in the March 1 issue of *Medigram.*

Members of the Society may, on request, study the official transcript of the meeting at the SMS headquarters in Madison. Copies of the complete reports and resolutions are also available.

Reference Committee on Scientific Activities

Resolution 1 called on the Society to object to the marketing of prescription drugs and devices directly to the public and to make this position known to manufacturers and citizens. The committee recommended that the resolution be amended to read: "RESOLVED, that the State Medical Society of Wisconsin strongly believes it is inadvisable to market prescription drugs and devices directly to the public." **Action:** adopted as amended.

Resolution 8 asked the Wisconsin delegation to the American Medical Association to seek AMA support for quality assurance studies of the biologic efficacy and purity of prescription medications, for standard drug identification codes on each tablet or capsule, and for the identification of the drug's original manufacturer. The committee recommended that the last resolve be amended to require the identification of the actual manufacturer. **Action:** amended resolution referred to the Board of Directors.

Mason C. Darling, MD
first SMS president, 1847

Resolution 9 called on the Society to work for the passage of laws regulating tanning booths. The committee recommended that it be referred to the Board of Directors for discussion with the Department of Regulation and Licensing. **Action:** referred to the Board.

Resolution 10 called for legislation regulating tattoo and massage procedures. The committee recommended that this matter also be referred to the Board for discussion with the Department of Regulation and Licensing. **Action:** referred to the Board.

Resolution 14 instructed the Wisconsin delegation to the AMA to work for legislation prohibiting food labels with the words "Contains No Cholesterol" without providing additional information on the fat content and the amount of saturated fats in the product. **Action:** referred to the Board.

Resolution 15 called on the SMS to recognize that life begins with conception, to support efforts to reverse the Supreme Court's *Roe v Wade* decision regarding abortion, and to recognize that abortion is contrary to the Hippocratic tradition. **Action:** rejected.

Report A of the Commission on Continuing Medical Education reported on the commission's activities in 1988. **Action:** accepted.

Report C of the Commission on Mediation and Peer Review reviewed the activities of the commission and

its subcommittees. The commission also requested that consideration be given to having ad hoc specialists provide review in certain cases. **Action:** accepted.

Report E of the Editorial Board of the *Wisconsin Medical Journal* described the new course set by the board for the *WMJ*. **Action:** accepted.

Report F of the Committee on Aging, Extended Care Facilities and Home Health Care reviewed the issues addressed by the committee and its activities throughout the year including the nursing home workshops. **Action:** accepted.

Report G of the Committee on Alcoholism and Other Drug Abuse reported on the activities of the committee and noted the committee's development of a conference on drugs and pregnancy. The committee also reviewed the development of the Psychiatric and AODA Inpatient Review System (PAIRS) and supported the Mental Health Committee's objection to using 51.42 boards as the gatekeeper for these admissions. **Action:** accepted.

Report I of the Committee on Maternal and Child Health highlighted the committee's activities including the work of the Study Committee on Maternal Mortality Survey, which continues to review maternal deaths in Wisconsin and to code data for publication. **Action:** accepted.

Report J of the Committee on Medicine, Religion and Ethics reviewed among other items the amended statement of purpose of the committee and the AMA policy on euthanasia. In addition it developed a policy statement on surrogate motherhood, which was approved by the Board. **Action:** adopted.

Report L of the Committee on Safe Transportation addressed two resolutions referred to the committee by the 1988 House of Delegates. The committee also reaffirmed its support for the safety belt law. **Action:** adopted.

Report M of the Committee on School Health reviewed the committee's continued examination of a variety of health issues relevant to school-age children. The reference committee recommended a delay in the distribution of policy statements favoring a discontinuation of scoliosis screening programs until further discussion by the committee. **Action:** accepted as amended.

Reference Committee on Organization and Finances

An amendment to Article VI of the constitution, which was introduced in 1988, changed the composition of the Board of Directors to limit as nearly as possible the number of directors to 31. The committee recommended adoption of the amendment. **Action:** adopted.

An amendment to Article IX of the constitution would have required that the president-elect be selected between at least two candidates. The committee recommended that the amendment not be adopted. **Action:** rejected.

Resolution 4 would amend Article VI of the SMS constitution to repeal the last paragraph and substitute the following: "The terms of the directors shall be for three years. No individual shall be permitted to serve more than two consecutive three-year terms as director, and no more than a total of six terms of service as director shall be permitted." **Action:** approved for introduction (final action due at 1990 annual meeting as required by the SMS constitution).

(The committee also recommended approval of an additional standing rule requiring that a constitutional amendment be voted on during the second session of the House after having been heard by a reference committee. **Action:** adopted.)

Resolution 17 required the Board of Directors to change the name of the Leadership Conference to one indicating that it is open to all SMS members. **Action:** referred to the Board.

Resolution 18 directed the SMS to explore the possibility of establishing a credit union to aid physicians with practice start-up costs, mortgages and loans. The committee recommended that the resolution be amended to direct the SMS to explore providing these services to members. **Action:** amended resolution referred to the Board.

Resolution 19 directed the SMS to support legislation providing for income tax deductions for college, vocational and postgraduate education costs. **Action:** referred to the Board.

Report D of the Commission on Public Information reviewed the commission's work over the past year, particularly in the areas of tort reform and Medicare mandatory assignment. **Action:** accepted.

Report Q, the Secretary's report, and his address to the House were received and recommended for acceptance. **Action:** accepted.

Report R of the Board of Directors contained a lengthy report from the Board on many activities undertaken by the Society during 1988. It was considered by the committee in several segments. The committee recognized the "pioneering work" of the SMS Task Force on AIDS and commended it for promoting scientific statewide seroprevalence studies. It also recommended that the AMA position on the RBRVS be approved as the official position of the SMS. In addition, the committee recommended that the House adopt the dues increase and the new dues billing cycle sought by the Board along with the 1989 budget as presented. Among other items contained in the Board report were the report of the Task Force on Health Care for the Uninsured, which was filed, and an update on the Statewide Impaired Physician Program. **Action:** approved.

Reports from the President and President-elect were also recommended for adoption by the committee. **Action:** adopted.

Continued on page 14

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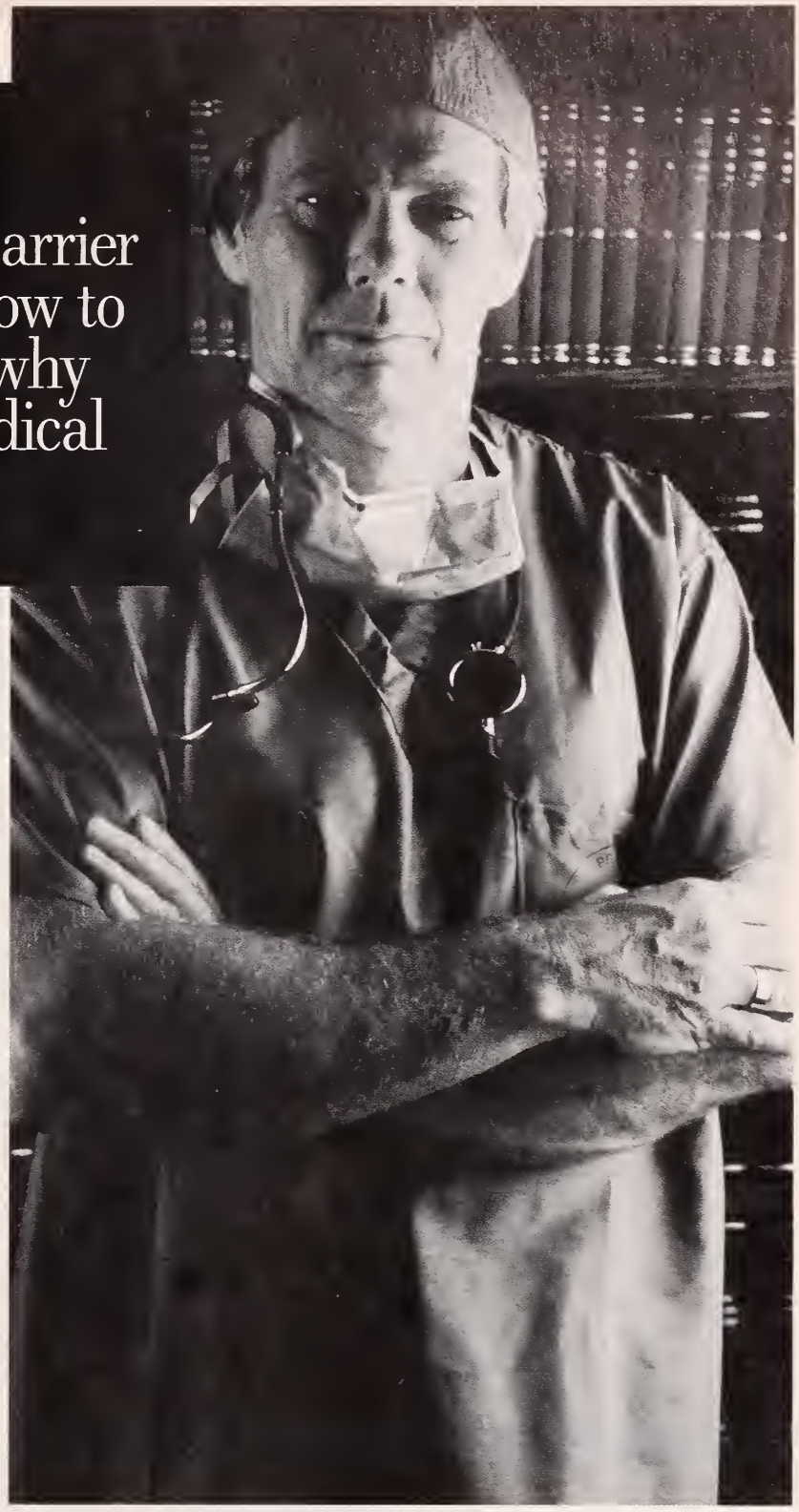

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Continued from page 12

Informational reports from the CES Foundation, WISPAC, SMS Services, and Physicians Insurance Company were also received by the committee. **Action:** filed.

Reference Committee on State and National Issues

Resolution 5 called for quality assurance reviews of emergency medical services by emergency medicine specialists. The committee recommended that the resolution be amended to specify that reviews should be done by physicians involved in emergency medicine services and to express Society support for appropriate regulations to require such a review. **Action:** adopted as amended.

Resolutions 6 and 13 supported One-for-Life legislation, which would provide for continuing education of Wisconsin emergency medical technicians funded by a $1 tax on each motor vehicle license. Support for the program would be contingent on the creation of a physician medical director for emergency medical services (EMS). The committee recommended that the resolutions be adopted. **Action:** adopted.

Resolution 11 called for legislation providing for mandatory regional planning and coordination of emergency medical services. The committee expressed its support for voluntary regional planning and recommended that the resolution be rejected. **Action:** rejected.

Resolution 12 supported extending Good Samaritan protection from legal liability to physicians involved in emergency medical services planning. The committee recommended that it be adopted. **Action:** adopted.

Resolution 21 called on the SMS to encourage the Wisconsin Peer Review Organization (WIPRO) to educate physicians and providers about aggregate data on disease and hospital care and tools used to screen cases, to share its findings on the appropriateness of admissions and quality of care, and to ensure consistency and quality decision making in its reviews. The committee recommended adoption of the resolution. **Action:** adopted.

Resolution 22 called on the Wisconsin delegation to the AMA to introduce a resolution at the 1989 annual meeting calling on Congress to enact comprehensive clean ambient air legislation and to initiate an international dialogue on limiting harmful air contaminants. The committee recommended adoption of the resolution. **Action:** referred to the Board.

Report BB of the Committee on Federal Legislation of the Physicians Alliance Commission reviewed the major issues addressed by the committee in the past year. **Action:** accepted.

Report H of the Environmental and Occupational Health Committee reviewed the committee's work regarding issues such as the care of hazardous substances, ambient air quality, and pain as an element in disability compensation. **Action:** accepted.

Report N of the Committee on Health Care Quality, Costs and Utilization summarized the issues addressed by the committee last year, including IPA reporting requirements, Medicare medigap insurance, and uncompensated care. **Action:** accepted.

Report P of the Wisconsin Nurses Association-SMS Liaison Committee discussed the continuing meetings between physicians and nurses. The report also contained recommendations for addressing the nursing shortage in Wisconsin. **Action:** accepted.

Report S of the Wisconsin Delegation to the American Medical Association described the significant issues addressed by the delegation last year. The delegation introduced three resolutions at the AMA annual meeting, two of which were adopted; one was referred to the Board of Trustees for study. **Action:** accepted.

Reference Committee on Socioeconomic Activities

Resolution 2 supported insurance coverage for fertility diagnosis and therapy in the state. The committee recommended that the resolution be amended to say the Society believes that health insurers should be required to provide a clear definition of benefits covered and that distinctions between experimental and non-experimental treatments for infertility and other medical conditions be made on the basis of recognized medical standards developed by bodies such as the AMA. **Action:** adopted as amended.

Resolution 3 presented 12 specific proposals for tort reform, and **Resolution 7** called for more prompt development of an alternative to the tort system. The committee recommended adoption of the following substitute resolution: "RESOLVED, that the State Medical Society continue to assign a very high priority to the passage of meaningful tort reform measures in addition to those already underway, and to the development and implementation of alternatives to the tort system, and be it further RESOLVED, that the tort reform proposals promulgated by the Wisconsin Society of Obstetrics and Gynecology and endorsed by the section on obstetrics and gynecology and the Brown County Medical Society be referred to the Board of Directors for review of the individual proposals and assignment of priorities for expeditious implementation, taking into consideration strategies for passage of the $250,000 cap on non-economic damages." (Two amendments to the substitute were offered during the House session; the first added the following clause: "RESOLVED, that the passage of legislation that mandates a $250,000 cap on non-economic damages is urgent and critical at this time. Additional aspects of tort reform require immediate evaluation by the State Medical Society for appropriateness and timely presentation to the

legislative bodies of the State of Wisconsin so that further legislative action can be taken to alleviate the professional liability crisis as it affects the quality and availability of all medical care, but particularly related to obstetrical care notably in rural areas;" the second amendment deleted the words "continue to" in the first clause of the substitute.) **Action:** adopted as amended.

Resolution 16 called for the creation of a task force to study issues surrounding insurance reimbursement for mental health care. The committee recommended that the resolution be referred to the Board and that the Board refer this issue to the Mental Health Committee for study and recommendation. **Action:** referred to the Board.

Resolution 20 expressed the Society's commitment to quality care for nursing home patients and directed the Society to work with legislative and administrative bodies to ensure adequate physician payment for routine visits for acute condition changes. The committee recommended that the resolution be amended to add two additional resolves. The first directed the SMS to seek modification of the 30-day limit on reimbursable visits, and the second called on the Wisconsin delegation to seek appropriate federal changes. **Action:** adopted as amended and referred to the Board.

Resolution 23 directed the Society to work with various bodies to correct inequities in Medicare physician reimbursements based on geographic differences. The committee recommended that the resolution be amended to include inequities based on specialty and variations in severity of illness as well. **Action:** adopted as amended and referred to the Board.

Report B of the Physicians Alliance Commission outlined the efforts of the commission over the past year on a wide variety of legislative issues, including the development of a policy statement on the evaluation of proposals for mandated insurance benefits. **Action:** adopted.

Report K of the Committee on Mental Health described the committee's work on the state Psychiatric and AODA Inpatient Review System (PAIRS), its peer review work for SMS Services insurance carrier, and its efforts to increase awareness of the problem of sexual involvement between therapists and patients. **Action:** adopted.

Report O of the Medical Liability Committee outlined the committee's work on a wide range of medical liability issues, including mediation panels, alternative dispute resolution systems, and loss prevention and risk management. **Action:** adopted.

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HOUSE OF DELEGATES: 1989

State Medical Society of Wisconsin

Speaker: Richard G Roberts/Vice Speaker: Cyril M Hetsko

County Medical Society	Delegate	Alternate
FIRST DISTRICT		
KENOSHA	Charles E Pechous Jr	Roman Bilak
	Clifton E Peterson	Kevin J Fullin
	Michael J Wempe	Ricardo M Rustia
MILWAUKEE	Albert H Adams	Mark R Aschliman
	Francis I Andres	David G Benzer
	William H Annesley Jr	Jeffrey J Butler
	Patricia M Barwig	Robert P Cronin
	Donald R Beaver	James A Cunningham
	John T Bjork	Reynaldo P Gabriel
	John E Cordes	Jeffrey M Jentzen
	Samuel C Craft	Raymond R Johnson
	Donna D Davidoff	Roger P Johnson
	James D Dolan	Vijay V Kulkarni
	Gerald J Dorff	Anthony J Linn
	Jerome W Fons Jr	James P Maney Jr
	Peter S Foote	Raul Mateo
	Ian H Gilson	Peter J Parthum
	Lucille B Glicklich	Ali A Sadoughian
	Russell S Gonnering	Burton A Waisbren
	Gerald G Govin	
	Paul E Hankwitz	
	Brian W Kennedy	
	Christina C Keppel	
	Thomas M Kidder	
	Stanley A Korducki	
	George M Lange	
	Robert F Madden	
	James A Means III	
	Dean D Miller	
	John P Mullooly	
	Robert F Purtell Jr	
	Marcia J S Richards	
	John E Ridley III	
	Roger L Ruehl	
	Thomas L Schlenker	
	George R Schneider	
	Paul J Sienkiewicz	
	William L Treacy	
	Frank H Urban	
	Wess R Vogt	
	James P Volberding	
	Jeffrey M Weber	
	John E Whitcomb	
	DeLore Williams	
	D Maclean Willson	
	Carol E Young	
OZAUKEE	Arthur B Conrad	Robert A Pfeffer
RACINE	Marvin G Parker	Victoriano A Baylon
	Kenneth J Pechman	Dennis E Feider
	Gregory A Shove	James P Gierahn
	Raymond E Skupniewicz	Mitchell H Leavitt
	William H Stone	David R Zeman
WALWORTH	Irwin J Bruhn	Edsel G Doreza
WASHINGTON	Charles S Geiger Jr	William J Listwan
	Michael C Reineck	Eric F Weber
WAUKESHA	Charles E Holmburg	Brian A Chapman
	Uriel R Limjoco	Diane M Goetz
	Timothy G Mc Avoy	LaVern H Herman
	G Daniel Miller	Kraig E Lorenzen
	Michael G O'Mara	Dean L Martinelli
	John D Riesch	Matthew A Meyer
	Jay F Schamberg	John R Park
	James A Stadler II	Gwendolyn Tanel
	Lee M Tyne	Herbert C White

County Medical Society	Delegate	Alternate
SECOND DISTRICT		
COLUMBIA-MARQUETTE-ADAMS	Robert T Cooney	Martin L Janssen
DANE	S Craighead Alexander	Gary R Bridgwater
	Gary R Bridgwater	Dolores A Buchler
	Thomas H Browning	James E Engeler Jr
	Dolores A Buchler	Susan M Haack
	Raymond W M Chun	Kay A Heggestad
	Peter L Eichman	Susan N Isensee
	Judith N Green	Kay E Jewell
	William L Kopp	Thomas B Kloosterboer
	Richard D Lindgren	Robert A Mc Donald
	Felipe B Manalo	Paul A Mc Leod
	Bradley L Manning	Bernard F Micke
	David L Nelson	Kathryn P Nichol
	Sandra L Osborn	Phillip J Schoenbeck
	Joseph F Sackett	John K Scott
	Robert B Shapiro	Nancy J Selfridge
	Richard L Staley	Benton C Taylor
	Benton C Taylor	John D Wegenke
	Marc D Tumerman	Richard O Welnick
	Roland J Vega	Ronald D Wenger
	Paul A Wertsch	John E Woodford
	Vacancy	Vacancy
DODGE	Edward F Cody	M Ahmad Ali
GRANT	Charles L Steidinger	James R Heersma
GREEN	Melvin S Blumenthal	John L Felton
	Jan E Erlandson	Daniel M Stormont
IOWA	Harald P L Breier	Timothy A Correll
JEFFERSON	George L Gay, Jr	Arthur S Marquis
LAFAYETTE	Vacancy	Lyle L Olson
RICHLAND	James J Tydrich	Thomas L Richardson
ROCK	Jordan Frank	Ronald K Bowers
	David B Gattuso	Edward C Miller
	James P Long	P Richard Sholl
	Daniel T Peterson	Terrance L Wiseman
SAUK	John A De Giovanni	Donald W Vangor
THIRD DISTRICT		
CRAWFORD	Michael S Garrity	Randall J Kieser
JUNEAU	Leon J Radant	D Keith Ness
LA CROSSE	Arthur G Barbier	Michael H Mader
	Thomas P Lathrop	James E Novotny
	Jack M Lockhart	Robert S Witte
	Paul H Steingraeber	Vacancy
	Edward R Winga	Vacancy
MONROE	Edward O Lukasek	Kevin A Jessen
TREMPEALEAU-JACKSON BUFFALO	Jeffrey K Polzin	W Bradford Martin
VERNON	Timothy J Devitt	Mark H Andrew

County Medical Society	Delegate	Alternate
FOURTH DISTRICT		
CLARK	Bahri O Gungor	Reganti V R Reddy
FOREST	Burton S Rathert	E Frank Castaldo
LANGLADE	Michael J Reinardy	James O Moermond Jr
LINCOLN	James S Janowiak	Walter Lewinnek
MARATHON	Curt G Grauer	Kathy P Belgea
	William R Owen	Norman F Deffner
	J Garry Sack	Joel R De Koning
	Gerald H Schroeder	Thomas O Miller
ONEIDA-VILAS	Paul W Grotenhuis	William E Raduege
	Bruce F Hertel	Vacancy
PORTAGE	Daniel L Brick	Robert J Jaeger
PRICE-TAYLOR	Michael A Haase	William E Yanke
WOOD	Michael J Kryda	Richard W Clasen
	William J Maurer	Louis C Hacker
	Michael P Mehr	Jung Kyun Park
	Robert E Phillips	Mario V Ponce
	Charles C Sorensen	Theodore A Praxel
	John E Thompson	Homer H Russ
FIFTH DISTRICT		
CALUMET	William E Hannon	Badri N Ganju
FOND DU LAC	Brian C Christenson	Russell S Pelton
	Elizabeth T Sanfelippo	K Alan Stormo
	David R Weber	Jeffrey A Strong
GREEN LAKE-WAUSHARA	Barbara L Rosenthal	Jeffrey J Carroll
OUTAGAMIE	Henry Chessin	George A Behnke
	Charles F Dungar	Vacancy
	David R Finch	Vacancy
	C William Freeby	Vacancy
WAUPACA	Joseph W Weber	Lloyd P Maasch
WINNEBAGO	George W Arndt	Edwin L Downing
	James L Basiliere	Owne L Felton
	John E Hoggatt	Gerald A Gehl
	Thomas J Luetzow	Johan A Mathison
	Eric B Wilson	Vacancy
	Vacancy	Vacancy
SIXTH DISTRICT		
BROWN	James M Berner	G Robert Kaftan
	James T Jerzak	Kenneth M Kubsch
	Thomas P Koehler	James V Lacey
	Rolf S Lulloff	Wesley E Mc Neal
	Herbert F Sandmire	Roderick L Meves
	David M Wineinger	Vacancy
	Vacancy	Vacancy
DOOR-KEWAUNEE	John J Beck	Mark O Weisse
MANITOWOC	Edward J Barylak	Thomas K Perry
	Joseph C Di Raimondo	Joseph E Trader
MARINETTE-FLORENCE	John E Kraus	Kenneth H Yuska
OCONTO	James J Wallace	William J Wittman
SHAWANO	Ronald L Harms	Miguel-Angel Jimenez
SHEBOYGAN	Roger G Klettke	Peter A Beatty
	James R Pawlak	Wendelin W Schaefer
	Mark W Sharon	James L Weygandt

County Medical Society	Delegate	Alternate
SEVENTH DISTRICT		
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	Donald E Riemer	William A Smith
CHIPPEWA	Merne W Asplund	Peter W Holm
EAU CLAIRE-DUNN-PEPIN	C Thomas Dow	Edgar O Hicks
	Michael F Finkel	Stanley G Norman
	Philip J Happe	Vacancy
	Daniel F Johnson	Vacancy
	Vacancy	Vacancy
PIERCE-ST. CROIX	Joseph E Powell	James R Beix
POLK	John O Simenstad	William W Young
RUSK	Howard T Chatterton	Douglas M De Long
EIGHTH DISTRICT		
ASHLAND-BAYFIELD-IRON	Charles R Longstreth	John C Oujiri
DOUGLAS	Vacancy	Vacancy
SAWYER	Lloyd M Baertsch	Paul Strapon III

SECTIONS	Delegate	Alternate
Allergy & Clinical Immunology	Marshall E Cusic	Robert J Kriz
Anesthesiology	Warren J Holtey	John H Barsch
Cardiology	D Joe Freeman	Robert M Green
Dermatology	Joel E Taxman	Nyles R Eskritt
Emergency Medicine	Vacancy	John J Maher
Family Physicians	Robert S Viel	Thomas H Peterson
Hospital Medical Staff	Stephen R Peters	Louis R Pfeiffer
Internal Medicine	Susan L Turney	Norman A Desbiens
Medical Faculties	Mark J Ciccantelli	Manucher J Javid
Medical Students	Jonathan H Berkoff	Rita F Huspen
Neurology	R Clarke Danforth	Gamber F Tegtmeyer Jr
Neurosurgery	Glenn A Meyer	S Marshall Cushman Jr
Obstetrics-Gynecology	Charles Hammond	Michael A Schellpfeffer
Ophthalmology	M Thomas Chemotti	Gregory P Kwasny
Orthopedics	James A Rydlewicz	James Langenkamp
Otolaryngology	Glenn M Seager	Thomas W Grossman
Pathology	Raymond C Zastrow	Ronald R Martins
Pediatrics	Carl S L Eisenberg	Vacancy
Physical Medicine & Rehabilitation	William J La Joie	Neal Taylor
Plastic Surgery	Terrence J Wilkins	Vacancy
Preventive Medicine	Constantine Panagis	Jane A Kilsdonk
Psychiatry	Rudolf W Link	Pauline M Jackson
Radiation Oncology	Sally M Schlise	Robert H Greenlaw
Radiology	Timothy T Flaherty	Vacancy
Resident Physicians	Vacancy	Vacancy
Surgery	Louis C Bernhardt	Dean B Pratt
Urology	Stuart W Fine	Charles W Troup
Young Physicians	Senen V Siasoco	John C Christianson

Presidential report

The appearance of the bull changes . . .

JD Kabler, MD

EFFECTIVE MEDICAL ASSOCIATIONS do not run themselves, they must be driven. A strong staff is necessary but not sufficient. The vital fuel is the concern and contribution (time and talent, not dues alone) of the physician members. The House of Delegates is our sovereign pilot in matters of policy, finance and the selection of officers to represent and direct our Society in the interval between meetings of the House. Thus this House is the tangible expression of the constitutional purpose of our Society: "to bring together the physicians of the state of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin and to secure the enactment of just medical laws."

Each year some from among the members of our Society are loaned the opportunity and responsibility to serve by representing us to the public, to the public's elected representatives, to other associations (medical and non-medical) and to journalists through which we are all informed. A year ago you entrusted to me the opportunity and responsibility of office in our Society. This report to you is a brief account of my stewardship together with some observations derived from events of the past year.

In meeting with district caucuses, county societies, and specialty societies, I was impressed with the diversity of our members, who are alike only in being licensed physicians and in their common commitment to the welfare of their patients. We differ in matters of age, sex, race, national origin, politics, religion, specialty and practice arrangement. Our Society is becoming younger, more female and more often employed. Our Society must remain conscious and respectful of these important differences and the diversity of opinions which they engender in formulating policy and united action.

In numerous meetings with members of the nursing and allied health professions, I have become increasingly aware of the challenge of devising solutions for the worsening shortages in these vocations, shortages which are a growing threat to the health of the public. Strained by the shortages within their ranks, these professions need our support despite vocal minorities within them that hold physicians responsible for their burdens.

The pressing need for tort reform and the adversarial role forced upon us in achieving reform, cannot preclude efforts to improve interprofessional relationships with lawyers. In this past year we have joined with members of the State Bar Association to begin formulation of a modern code to inform and guide members of both professions in their responsibilities to each other and to those they serve.

There are additional difficult challenges, well described elsewhere, which continue to confront us and require resolution. The pace of change increases and issues concerning Acquired Immune Deficiency Syndrome, care of the uninsured and under-insured, threats to rural health care, and the manner and sufficiency of physician payment are still pending.

Despite this recital of problems and unfinished business, one should not conclude that the practice of medicine, the work of this Society and the roles of your officers are grim and somber. Quite the contrary; there is joy and reward in them all. Patients recover and express their gratitude; old problems fade away as they are solved; new friendships are formed.

On a more personal note, during the past year I have developed a deeper understanding of the Spanish proverb which states, "The appearance of the bull changes as one leaves the grandstand and enters the arena." Among the lessons learned is the admonition, "Never mail a letter you enjoyed writing." It has been as busy a year for me as it has for you. If I had it to do all over, would I do it again? Absolutely!

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Address of the president-elect

Charting the course for 1989–1990

I HAVE BEEN INVOLVED in medical society activities for some time now, but in this past year, serving as your president-elect, I have looked at our society and its people in an entirely different light, possibly because of a feeling of considerable apprehension of the year ahead.

I have come to know Tom Adams much better, and have recognized in him a mind keen at organizational skills, and an in-depth understanding of political matters so important to medicine in our state. I have become much better acquainted with our staff. Tom has surrounded himself with an extremely capable and knowledgeable group of people totally dedicated to the purpose of our society as stated in our constitution: "To advance the science and art of medicine, and the better health of the people of Wisconsin and to secure the enactment and enforcement of just medical laws."

I have become much better acquainted with J D Kabler, and have found him to be one of the most gifted people I have ever met. Through my travels during the past year I have met many more physicians and I find you to be a talented articulate group of people dedicated to the highest ideals of medicine in advancing the art and science of medicine and the better health of our citizens. I, however, have found you somewhat less enthusiastic about the second part of our purpose concerning the enactment and enforcement of just medical laws. I am unsure about the reason for this reluctance to become involved in politics. Perhaps it is due to the unfamiliarity with the legislative chambers. Perhaps it is the way laws are made. The process of making just medical laws does not progress along the controlled, logical, reasonable lines we are accustomed to in the development of diagnostic and treatment programs for our patients. I'm sure many other factors are operative here as well.

Regardless of the reasons for this reluctance, one of my chief goals this year is to enable rank and file members to be more comfortable and effective in the political world. In my own mind, my success will be measured by this change.

This morning I also want to talk with you about a very disturbing development in medical education that threatens the future of medicine. There seems to be a change from the long and strong tradition of the best and brightest of our young people going into the health care sciences. Consider the present situation at the Medical College of Wisconsin, University of Minnesota, and Northwestern University, to mention a few, which were unable to fill their freshman class with what they felt to be qualified applicants. This decline in medical school applicants and enrollees, coupled with an apparent lack of attractiveness in nursing and other allied health professions, does not bode well in the future for the promise of medicine—to continue the rapid technological and scientific advances we are now providing for our patients. Our community has been well served by the best and the brightest going into medicine. I don't think our community is nearly as well served by so many of our best and brightest young people going into corporate mergers, law, and financial engineering. Recent advances in molecular biology, recombinant DNA synthesis and ocular lens implants are not the products of average ordinary minds. We do not want to deny our community the continuation of these advancements because superior intellects capable of doing these things are not entering medicine in sufficient numbers.

William L. Treacy, MD

The reason for this lessened enthusiasm for the health care sciences is not at all clear to me. I am sure the beatings we have taken from Congress on Medicare issues have had their effects. Another likely reason is physician dissatisfaction with the limitations on how we practice medicine set by third party payers and managed health care organizations when the physician is trying to do everything reasonable for each patient regardless of cost. I think we are all keenly aware of the beatings we are taking from the plaintiff attorneys on liability issues. All these factors, I'm sure, make our profession less attractive to the impressionable, bright minds we need so badly.

I am sure, however, there is a great deal more to it, and I propose the formation of a special task force on medical manpower to look at this in-depth, and make recommendations for future SMS policy and action. I would envision this task force to be composed of the deans of our state's two medical schools and members of medical school faculties knowledgeable and informed on the admissions process and the reasons applicants choose or reject medicine. I would also envision it to include a few

students and at least one counselor at the basic college level in addition to a number of practicing physicians. I believe the task force so comprised would have the resources and perspective necessary to gather the data and the ability to interpret it and make appropriate recommendations. I would envision these recommendations would be available for this House to review and act upon at its 1990 session.

Another issue that concerns me greatly and affects everyone here today is the skyrocketing costs of professional liability insurance and the implications of these rising costs. Clearly one of our principal objectives in the legislature this year is the passage of the $250,000 cap on noneconomic awards in medical malpractice actions. This is a reasonable piece of legislation. The negative effects on the injured party are minimal, and its effect on stabilizing malpractice premiums is well established. In California, before a similar cap was in place, rates were among the ten highest in the nation. Today, because damage awards for pain and suffering are capped at $250,000, rates are among the ten lowest.

Things are going well thus far for this on its road to passage, but much more needs to be done, especially in the area of physicians meeting with our legislators across the state to show them the benefits and the reasonableness of this legislation. Every legislator will readily meet with, and listen very carefully to his or her own constituent physicians on the subject of this reasonable bill. If you are interested in doing this—meeting with your legislator on this bill—the SMS field staff can be of great help in setting up and planning this meeting. I cannot urge you strongly enough to communicate with your legislator. It is of critical importance to the passage of this most important bill.

I have had a number of planning meetings with various members of the staff and have been asked what activities of this position I would like to emphasize. Clearly the activity I would treasure the most is meeting with, and getting to know many more of you physicians. Accordingly, I plan to be at as many county medical society meetings and specialty society meetings as I possibly can. I have arranged to be free to travel around the state, and I actively seek out invitations to be with you. I feel this is truly the forum in which we can keep you informed about what is happening in Madison and can actively seek out your feelings and reactions to any SMS policy. I look forward to this process.

I must warn you, however, that these encounters may involve a fair bit of arm twisting to get you more politically involved, either through WISPAC or direct communication with your legislators. It is only through this type of activity in 1989 that we can accomplish our purpose —"to advance the science and art of medicine, and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws."

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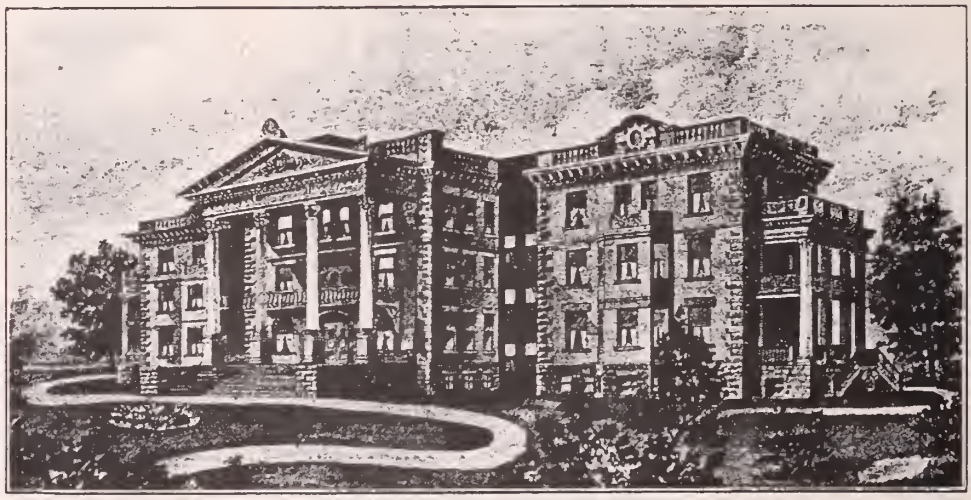

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Brief Summary

Consult the package literature for complete information.

Indications and Usage: Axid is indicated for up to eight weeks for the treatment of active duodenal ulcer. In most patients, the ulcer will heal within four weeks.

Axid is indicated for maintenance therapy for duodenal ulcer patients at a reduced dosage of 150 mg h.s. after healing of an active duodenal ulcer. The consequences of continuous therapy with Axid for longer than one year are not known.

Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General* — 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests — False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine.

Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported, it was not possible to determine whether these were caused by nizatidine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

Secretary's speech

Carrying medicine's banner into the tort wars

Thomas L. Adams

PERHAPS NO EVENT is so profoundly joyful as the birth of a child. Most of us here know first-hand the giddy expectations, the enhanced love among family members, and the tender warmth that most of us can only describe as magical. The experience is truly one of the greater gifts in our lives.

Imagine, then, the horror and shock for a woman and her family as she arrives at the hospital, expecting a normal delivery, only to encounter serious medical complications—and to be told that there is no one on staff qualified to handle the delivery. It is the middle of a Wisconsin winter night, a fierce storm is cutting through the darkness, and 100 miles of twisting, slippery highway separates the woman from the OB specialist she desperately needs.

Her mind races: How will she reach the doctor in time? She's already in labor. Will the delivery be more difficult? More painful? More dangerous? Will her child be permanently damaged—or worse? Never has she felt so abandoned, so alone, so terrified.

What I've described to you is based on an actual occurrence in Wisconsin, and it is not difficult to imagine similar instances elsewhere in the state. From a southeastern Wisconsin hospital reporting that 50% of its patients delivering babies arrive at the hospital without ever having seen a physician for prenatal care, to a northwestern Wisconsin clinic delivering more than 300 babies a year without an OB specialist on staff and sending its high risk cases more than an hour's drive away—the uncontrolled costs of medical professional liability insurance is taking its ugly toll on the health of Wisconsin's citizens.

Although the average obstetrician in Wisconsin pays $1,000 a week for liability insurance, the damage to medicine, we must remember, is not isolated to OB care. Ear, nose and throat specialists, for example, pay an average of $32,875 for insurance, and thoracic surgeons pay $39,972. The complete list of specialties straining under such financial burden is too long to recite here, but the damage is clear. Up 540% since 1980 and 200% since 1984 for many physicians, the rate of insurance cost increases is not only devouring precious health care dollars, but diverting physicians from certain specialties and localities, driving older physicians into earlier full retirement, and discouraging our ablest young from pursuing the healing arts. In short, it is making health care more expensive and less available.

We are used to describing this problem in statistics, but the suffering it inflicts is on the bodies of our families, our friends, and our fellow citizens. Too often those who suffer most are those who can sustain it least: the very old and the very young, the very ill and the very poor. The cold, hard numbers on soaring costs of care, falling numbers of medical school applicants, overcrowded office schedules, declining numbers of physicians in critical specialties, and ever-lengthening miles of travel for rural patients, are comfortably antiseptic. The human story they tell, however, is anything but sterile, anything but polite.

The time for politeness is past; the time for action is here.

Parlor-room philosophers of jurisprudence have for too long pontificated about protecting the status quo in the tort system and pooh-poohed the outrageous examples of a system out of control. And, in Wisconsin, a few legislators have for too long thwarted the will of the majority and blocked efforts to bring the tort system back in line with reality. The action in which Wisconsin's physicians are now engaged is a battle to reform this state's inequitable tort laws, and the initial assault is a campaign for a more reasonable limit on non-economic damages. Victory will not come quickly, cheaply or easily, for the powerful opponents of reform find the present system extremely lucrative and place their personal wealth ahead of the public's health.

The State Medical Society has carried organized medicine's banner forward into the fray and demanded a cap of $250,000 on non-economic damages. A bill to impose this cap was introduced into the legislature this spring and it carries the names of nearly 60 co-sponsors. This bill will pass if it ever reaches the floor, so how is it that such a vitally important and overwhelmingly popular bill is left to die a slow death of neglect and indifference? Leadership—or, rather, the lack of it. Without leadership, the bill will never reach the floor, never be debated, never be voted on, and never be passed.

Your State Medical Society has played by the rules, compiled the statistics, presented the facts, educated the public, lobbied the legislature, and lined up the support of the majority. Meanwhile, the refusal of the so-called legislative leadership to

acknowledge the mounting crisis facing Wisconsin's health care system is obscene. Their refusal to allow this issue to receive a fair hearing is truly a travesty of justice and a perversion of the democratic process. What is needed now is true leadership from the majority of legislators who understand and support the critical need for reform of the state's tort laws. It is up to these legislators—particularly those in the majority party—to refuse to allow one or two of their colleagues to control this issue from inside the pocket of a special interest group.

I challenge the members of the Wisconsin legislature to listen to their consciences and listen to their constituents. I challenge them to refuse to hide behind the shadows of their "leaders" who continue to thwart the will of the majority. I challenge them to demand an open and fair debate on the proposed legislation.

Winning such a cap will not win the war, but it is an important first battle. A study completed in March by the actuarial consulting firm of Milliman and Robertson found that if such a cap had been in place on July 1, 1988, when the most recent Patients Compensation Fund fee increase took effect, Wisconsin's physicians and their patients could have saved $6.2 million in just one year.

Why is capping non-economic damages so important? Because they are the least predictable portion of medical malpractice awards and insurance carriers must plan for the worst-case scenarios when setting their rates. Because, according to the Congressional General Accounting Office, they are the fastest growing portion of medical malpractice jury awards. And because they do the most violence to justice. Measuring pain and suffering is an exercise in subjectivity —often prompting an exercise in theatrics from the plaintiff's champion at the bar—and plaintiffs with identical injuries often receive widely disparate awards.

More than 20 states have found caps on non-economic damages useful in stabilizing costs without reducing the quality of medical care, and California is a prime example. In 1975, California's medical liability insurance rates were among the ten highest in the nation. The state passed a $250,000 limit on non-economic damages, and by 1987 California's rates were among the ten *lowest* in the nation.

We also have an example right here in Wisconsin. Physicians employed by the government are protected by a law that limits plaintiffs' recoveries to $250,000 per defendant, and a legislatively mandated study by several state agencies found that if these physicians had to buy the same kind of insurance coverage as their private-sector peers, the costs to the state would have risen by at least 300% and perhaps as much as 1,400%. The same study found that plaintiffs' rights were not harmed by the cap. The cap provided for reasonable and adequate recoveries for plaintiffs while protecting the state against catastrophic costs. Finally, the study recommended that the private-sector

An ad from the Wisconsin Medical Journal, 1918.

system be made more like the government's system.

In 1988, insurance companies settled more than $35 million in Wisconsin medical malpractice claims—more than twice as much as the year before. The Patients Compensation Fund alone paid out $29 million on about 58 claims. And the average award for a circuit court decision also doubled from 1987 to 1988. Even worse, huge chunks of these monies are being diverted from the injured parties and into the bulging bank accounts of their trial attorneys. In a million-dollar verdict, the trial lawyer will normally pocket $333,000 or more of the award.

If you review the medical liability cases from the past two years, you don't get very far before you find payments for lawyers fees of more than $565,000, $560,000, $516,000, $503,000, and half a million dollars. And that is only scratching the surface. Clearly, the system is out of control.

Dollars and cents, however, is not all we're talking about. It's not even the most important thing we're talking about. We're talking about common sense. We're talking about justice. We're talking about the health and well being of the people of Wisconsin. And if the current trend continues unabated, we will find ourselves talking about life and death.

Physicians can neither wait that long nor pay that price. Physicians must take the lead, set the example, and fight the good fight. You must speak now and you must speak with one voice. Your message must be clear and direct and compelling. As trusted confidants of your patients, you must urge them to join the fight for the good of their families and themselves. As men and women of learning, you must use your positions of community leadership to persuade your fellow citizens to contact their elected representatives in Madison and express their support for the Society's efforts. And as physicians who care deeply about your profession, your livelihoods, and your patients, you must personally contact your elected officials and make yourselves heard.

When you return to your homes from this annual meeting, call your legislators and ask them why these vital reforms have been foiled. Ask them to push their leadership, to knock down the barriers to sensible tort reform, and to set the democratic process in motion. Tell them you want action, and you want it now. The health of Wisconsin depends on it.

SMS bestows honors

Each year during the annual meeting, the Society singles out for recognition those leaders in health care—both physicians and non-physicians—who have made significant contributions to the medical profession and the health and well-being of Wisconsin's citizens. At this year's President's Dinner, Roger L. von Heimburg, MD, chair of the Board of Directors, and J D Kabler, MD, SMS president, presented the following awards.

Civic Leadership Award

In 1972, the SMS Board of Directors established the Civic Leadership Award to honor a Society member for outstanding contributions to the Society and the community. Blake E. Waterhouse, MD, of Madison, was this year's recipient.

Dr Waterhouse is president and chief executive officer of Physicians Plus Medical Group in Madison and a practicing internist.

He received his medical degree from Indiana University School of Medicine and served an internship at Iowa Methodist Hospital in Des Moines. A residency was completed at Mayo Clinic in Rochester. In 1988 Dr Waterhouse earned a masters degree in business administration

SMS President JD Kabler, MD, (left) presents Roger E. Laubenheimer, MD, (right) with a Meritorious Service Award.

from the University of Wisconsin–Madison.

Dr Waterhouse joined Jackson Clinic in Madison in 1965 and was its medical director from 1977 to 1987. He has also been associated with the University of Wisconsin Medical School since 1968 as an associate clinical professor of medicine.

Dr Waterhouse is a former president and board member of the Dane County Medical Society and a former board member of the SMS. He also served on the Board of Directors for Blue Cross–Blue Shield of Wisconsin, Wisconsin Physicians Service, and the Jackson Foundation for Medical Research and Education.

Dr Waterhouse has a long history of commitment to his community. He served on the board for the Madison Chamber of Commerce from 1981 to 1987 and was its chair in 1985. He has also played key leadership roles in his church, the United Way of Dane County, the Downtown Rotary Club (he will assume the presidency this year), the Badger Basketball Boosters, a Madison savings and loan association, and the Madison Civic Center.

It has been said of Dr Waterhouse that his leadership has helped strengthen the bonds between the medical profession, local businesses and the university.

In 1988, Dr Waterhouse received the Executive of the Year Award from the *Capital Times* and an executive marketing group in Madison.

The Directors Award

The Directors Award is the highest award bestowed by the Society and is granted only on occasion to those who have served with outstanding distinction the science of medicine, physicians and the citizens of Wisconsin. In the 60 years since it was established, 50 awards have been granted. The recipient of this year's Directors Award was Bernie Maroney, former assistant secretary and corporate counsel of the SMS. The text of the award reads as follows:

"Although not a physician himself, Bernie Maroney has been a friend to organized medicine in Wisconsin for more than 25 years. He exemplifies the highest ideals espoused by the legal and medical professions—competence, dedication to the profession, compassion, and a commitment to his community.

"A native of Mount Hope, WV, Bernie received his law degree from the University of Wisconsin–Madison in 1962 and that same year was hired as a legislative clerk by Charles Crownhart, then SMS secretary. His duties included tracking all legislation of interest to the Society and preparing position papers for the Legislative Committee. In evaluating his job performance, Crownhart described Bernie as a 'dogged worker' and one who was not afraid to express his opinion.

"In 1968, Bernie attained the position of assistant secretary and corporate counsel, eventually serving under three secretaries—Crownhart, Earl Thayer, and Tom Adams. Earl Thayer has said that he appreciated Bernie's 'insight, understanding and love for the medical profession.'

"As assistant secretary, Bernie worked with the secretary-general manager in all spheres of Society operations—finance, the law, legislation, medical practice, continuing medical education, personnel, membership, public relations, public information, and general administration. He also directed the Society's corporate legal affairs, and over the years staffed more than 25 SMS committees.

"His other responsibilities included supervising the production of the *Wisconsin Medical Journal*, the statewide Mediation and Peer Review Program, and the Impaired Physician Program.

To many in the legal community, Bernie Maroney *was* the Medical Society. He represented the Society's viewpoint on a number of public and private organizations, and he gave numerous continuing legal education presentations on health law to members of the State Bar and continuing education programs to a variety of health professional groups.

A time for celebration.

"Bernie is probably best known, however, for the valuable advice he gave to physicians and the SMS staff. Not only did he dispense legal counsel on a multitude of issues affecting physicians' practices, he also lent a sympathetic ear on personal concerns. Darold Treffert, MD, a past Society president has said, 'Bernie's advice and counsel seem always to be sensible, candid and, importantly, correct.'

"Bernie also developed a special rapport with the SMS staff and held them together during some difficult times. For many, Bernie became a friend as well as a mentor.

"Last fall, Bernie announced that he would retire from the Medical Society after 26 years of service to take up the private practice of law. He will also continue as executive director of the Interstate Postgraduate Medical Association. As he takes up the new challenges that await him, we wish him well."

Distinguished Service Award

The Distinguished Service Award has been presented since 1964 in recognition of outstanding contributions to the science and art of medicine by physicians engaged in teaching or research.

This year's recipient, Charles L. Junkerman, MD, of Milwaukee, has served as a faculty member of the Medical College of Wisconsin for more than three decades. For the past ten years he has been an associate dean and senior vice president for professional and academic affairs at Froedtert Memorial Lutheran Hospital. In that position, Dr Junkerman oversees all MCW teaching programs at Froedtert Hospital and is also medical director for that institution.

In addition to his administrative duties, Dr Junkerman has continued to teach both medical school and postgraduate students and serves on the Dean's Academic Council.

In July, Dr Junkerman will retire from his MCW-Froedtert appointment, but will continue to teach and conduct research at the Medical College's Center for the Study of Bioethics.

An internist, Dr Junkerman received his medical degree from Marquette University School of Medicine. He served both an internship and residency at Columbia Hospital in Milwaukee.

For many years while in private practice, Dr Junkerman also taught at the Medical College and was appointed a clinical professor of medicine in 1972.

He became a full-time faculty member in 1975 and also served as section chief of general internal medicine and vice chair of the department of medicine. During this period he was responsible for much of the residency program in internal medicine during the residents' rotation on general medicine. He planned and supervised a series of ten postgraduate courses entitled *Recent Advances in Internal Medicine for the Practicing Clinician*, which covered the spectrum of medical topics—from cardiology to rheumatology—for soon-to-be internists.

In 1979, Dr Junkerman received his dual appointments from Froedtert Hospital and the Medical College. When Froedtert Hospital opened, he was charged with setting up the teaching programs and organizing the clinical services there as well.

Dr Junkerman is an active member of the SMS and served on the Commission on Continuing Medical Education from 1982 to 1987. He continues to be a member of the Society's Task Force on AIDS.

Also a member of the Medical Society of Milwaukee County, Dr Junkerman has served on the Ethics Committee and the Liaison Committee with the Medical College. He was a member of the Board of Directors from 1982 to 1988.

In addition, Dr Junkerman has been a delegate for the American College of Physicians, Section Council of Internal Medicine, to the American Medical Association and served as College Governor for Wisconsin from 1978 to 1982. Other professional organizations in which he is a member include the American Heart Association, the Milwaukee Internists Club (he was president in 1970), the Association of American Medical Colleges, and the Milwaukee Surgical Society.

Dr Junkerman has also lent his expertise to a number of worthwhile civic and health-related projects. He worked with Project Hope in Ceylon, Planned Parenthood of Wisconsin, Wisconsin Indochina Refugee Relief, the Milwaukee High Blood Pressure Program, and the Southeastern Wisconsin Health Systems Agency, Inc.

Recognized among his peers as an outstanding instructor and clinician, Dr Junkerman has received several awards for teaching, and last year was presented with the Erwin R. Schmidt Interstate Teaching Award from the Interstate Postgraduate Medical Association.

(Because Dr Junkerman was unable to attend the annual meeting, his award was presented during the July Board of Directors meeting.)

Physician-Citizen of the Year Award

The Physician-Citizen of the Year Award has been given each year since 1982 to honor a practicing Wisconsin physician for exceptional contributions to his or her community and patients. The winner is selected by the SMS Commission on Public Information.

This year's recipient, Jerome W. Fons, Jr, MD, of Greenfield, has been a leader in organized medicine for many years and has given a lifetime of service to his community, neighbors, and friends.

An obstetrician-gynecologist, Dr Fons graduated from Marquette University School of Medicine and served an internship and residency at St Joseph's in Milwaukee.

Dr Fons has served on the Society's Board of Directors since 1982 and has been a delegate to the SMS since 1980; he was as an alternate delegate from 1977 to 1979. Last year, Dr Fons was selected as a member of the Wisconsin delegation to the AMA.

Dr Fons is also a member of the Board of Directors of Physicians Insurance Company and has been its president since 1985.

From 1981 to 1987, Dr Fons served on the Board of Directors of the Medical Society of Milwaukee County. He assumed the presidency in 1986, 30 years after his father was elected to the same post. As president, Dr Fons was an energetic advocate for the profession through interviews and talk shows on Milwaukee radio and television and speeches to civic clubs and organizations. He also served on the Task Force on Cost Containment and the Physicians Alliance.

In addition to his professional involvements, Dr Fons has been active for more than 20 year in scores of civic programs and activities. He

has also served positions in local government groups including the Board of Education and the Cudahy Health Commission.

An active leader in the Boy Scouts for many years, Dr Fons served as chair of his local troop in 1985 and has been a Merit Badge counselor. In 1986, he received the Meritorious Achievement Award from the Milwaukee Council.

Dr Fons has also been a member of the Cudahy Chamber of Commerce for more than 20 years and has served on its board and on numerous Chamber committees. He is active in the Cudahy Lions Club, having chaired various committees and served as the organization's chair. Dr Fons has helped raise funds for college scholarships for Cudahy high school students, and he participates in the club's eye bank, diabetes, and food basket programs.

As part of his community involvement, Dr Fons has taught his "About You" course at Trinity Hospital for many years. These six-week classes for mothers and daughters and fathers and sons focuses on hygiene, nutrition, and sexual and psychological development.

Dr Fons has also conducted a series of classes on sexuality for young women at Cudahy High School. His seminars not only impart information, but challenge his students to engage in critical thinking and independent decision-making.

Dr Fons is an active member of the Executive Council of the 440th Tactical Airlift Wing's Civilian Support Committee, a group of local business and civic leaders that support the local Air Force Wing at Billy Mitchell Field. He served as chair of the group in 1987.

Pauline M. Jackson, MD, (left) receives a Meritorious Service Award from SMS President JD Kabler, MD, (right).

Presidential Citation

Each year since 1957 the president of the SMS, with the approval of the Board of Directors, has had the privilege of presenting a Presidential Citation to a physician or non-physician who has made an outstanding contribution to medicine and the public health.

This year's recipient, June Dahl, PhD, was honored for her leadership in cancer pain management issues, her achievements as a professor and researcher in the Department of Pharmacology at the University of Wisconsin, and as chair of the Wisconsin Controlled Substances Board.

A native of Hudson, Dr Dahl received a bachelor's degree in chemistry from Macalester College and a doctor of philosophy degree in physical chemistry from Iowa State University.

She joined the University of Wisconsin Medical School in 1957 as a project associate, and over the years rose through the ranks of instructor, lecturer, assistant professor and associate professor to full professor in 1984. Recognized as an outstanding teacher, she received the Chancellor's Award for Distinguished Teaching in 1982 and the Wisconsin Medical Alumni Association Teaching Award in 1985.

Dr Dahl was appointed to the Controlled Substances Board in 1977 and was reappointed twice. She served as vice-chair of the board from 1980 to 1982 and as chair from 1982 until her term expired last year. During her term as chair, she presided over the board's revision of the state's drug laws. In 1988, the Wisconsin Association on Alcohol and Other Drug Abuse presented the board with the Outstanding Program Award for its rational and thoughtful approach to the drug abuse problem.

In 1984, the CSB studied the issue of whether heroin should be legalized for the management of cancer pain. Out of that study emerged the Wisconsin Cancer Pain Initiative, which Dr Dahl has chaired since its inception. The initiative is a network of health care professionals around the state seeking to assure people suffering from cancer that they will be as free from pain as possible.

Earl Thayer (center) visits with Richard H. Ulmer, MD, (left) and W. Bruce Fye, MD (right).

Two years ago the World Health Organization named Wisconsin a model state in its worldwide effort against cancer pain. The initiative and Dr Dahl have also received recognition and praise from Wisconsin governors, the state legislature, and health professionals from around the world.

Dr Dahl has also served as chair of the Wisconsin Task Force on IV Drug Abuse, which last fall issued a comprehensive set of recommendations for controlling the spread of AIDS among drug abusers in Wisconsin.

In addition to her teaching duties and public service, Dr Dahl serves on a number of professional committees in the medical school and the university.

Meritorious Service Awards

The following physicians received the 1989 Meritorious Service Award for "exceptional leadership and dedication to the State Medical Society of Wisconsin and the health of Wisconsin citizens":

Wayne J. Boulanger, MD, of Milwaukee, for 13 years of service to the *Wisconsin Medical Journal* as editorial director and member of the Editorial Board.

Pauline M. Jackson, MD, of La Crosse, for nine years as a District 3 director.

Roger E. Laubenheimer, MD, of Milwaukee, for three years as District 1 director.

John K. Scott, MD, of Madison, for 14 years on the Committee on Medicine, Religion and Ethics.

Robert F. Purtell, Jr, MD, of Milwaukee, for 12 years on the Physicians Alliance Commission.

Roger L. von Heimburg, MD, of Green Bay, for nine years as a District 6 director, having served two years as chair of the Board.

Raymond C. Zastrow, MD, of Milwaukee, for 12 years on the Physicians Alliance Commission.

Melvin F. Huth, MD, of Baraboo, for 29 years of service as a member of the *Wisconsin Medical Journal* Editorial Board.

Special Recognition Awards

The following physicians, who are retiring from service on an SMS commission or committee, were named to receive the Society's Special Recognition Award. These awards will be presented at county medical society and SMS commission and committee meetings throughout the year.

Melvin S. Blumenthal, MD, of Monroe, for nine years on the Committee on Environmental and Occupational Health.

Dean M. Connors, MD, of Madison, for nine years on the *Wisconsin Medical Journal* Editorial Board.

George L. Gay, MD, of Cambridge, for nine years on the Public Information Commission.

John E. Inman, MD, of Monroe, for 11 years on the Committee on Maternal and Child Health.

Jack M. Lockhart, MD, of La Crosse, for nine years on the Physicians Alliance Commission.

Robert W. Page, MD, of Marshfield, for nine years on the Committee on Environmental and Occupational Health.

Wendelin W. Schaefer, MD, of Sheboygan, for nine years on the Committee on Environmental and Occupational Health.

Jame Schaefer, of Sheboygan, for 12 years of service as the Auxiliary's representative on the Committee on Environmental and Occupational Health.

Fifty Year Club

Each year, the Society honors its members who have served their profession and patients for 50 years. This year, 42 physicians were inducted into the Fifty Year Club at the Directors Dinner during the annual meeting. Those who attended spent the evening greeting old friends and reminiscing about the practice of medicine in bygone days. J D Kabler, MD, SMS president, presented each inductee with a special certificate and club pin and congratulated each one for entry into this distinguished group.

Physicians who entered the Fifty Year Club in 1989 are:

William B. A. J. Bauer, MD, Ladysmith
Karl H. Beck, MD, Vero Beach, Fla
Anthony T. Buscaglia, MD, Elm Grove
W. Graham Cameron, MD, Eau Claire
Lorne A. Campbell, Jr, MD, Clear Lake
Cyril Michael Carney, MD, Beloit
Dann B. Claudon, MD, Mequon
James E. Conley, MD, Milwaukee
Halil Davasligil, MD, Germantown
Ellet H. Drake, MD, Wausau
John Erbes, MD, Milwaukee
Victor S. Falk, Jr, MD, Stoughton
Oscar F. Foseid, MD, Black Earth
Philip C. Guzzetta, Jr, MD, Delray Beach, Fla
Paul F. Hausmann, MD, Delafield
Anne L. High, MD, Milwaukee
Richard P. Jahn, MD, Milwaukee

Fifty Year Club, 1989: (standing, left to right) William B.A.J. Bauer, MD, John T. Mendenhall, MD, John J. Satory, MD, George F. Savage, MD, Merlyn C.F. Lindert, MD, Charles E. Koepp, MD, and Victor S. Falk, MD; (seated, left to right) August J. Jurishica, MD, Cyril Michael Carney, MD, Halil Davasligil, MD, Dann B. Claudon, MD, George R. Thuerer, MD, and George E. Moore, MD.

Fred G. Johnson, Jr, MD, Superior
August J. Jurishica, MD, Milwaukee
Elmer E. Kern, MD, Mukwonago
Howard M. Klopf, MD, Green Valley, Ariz
Charles E. Koepp, MD, Marinette
Merlyn C. F. Lindert, MD, Wauwatosa
William H. Lyons, MD, Madison
Otto T. Mallery, MD, Eleuthera, Bahamas
Jerome L. Marks, MD, La Costa, Calif
John T. Mendenhall, MD, Middleton
Morris Moel, MD, Pompano Beach, Fla
George E. Moore, MD, Ashland, Ill
James W. Nellen, MD, De Pere
John J. Satory, MD, La Crosse
George F. Savage, MD, Port Washington
Philip H. Seefeld, MD, Mesa, Ariz
Karl H. Stahmer, MD, Wausau
John R. Talbot, MD, Lake Placid, Fla
George R. Thuerer, MD, Rhinelander
George E. Wahl, MD, Eau Claire
Samuel G. Weisfeld, MD, Delray Beach, Fla
William P. Wendt, MD, Elm Grove
Harold J. Werbel, MD, Carson City, Nev
Philip M. Wilkinson, MD, Oconomowoc
Sidney K. Wynn, MD, Boca Raton, Fla

Student Writing Contest

Each year the *Wisconsin Medical Journal* sponsors a writing contest for medical students and residents. This contest is meant to encourage and reward good science writing and to cultivate interest in the Society among students and residents. This year's winner of the resident writing contest was Sheila L. Momont, MD, for her paper *Ethylene glycol poisoning*. Michael J. Schwabe, MD, won the student writing contest with his article *Predictors of treatment of outcome with Haloperidol in Tourette Syndrome*.

During the first session of the House of Delegates Richard D. Sautter, MD, medical editor of the *WMJ*, presented the winners with a check for $500 and an engraved plaque. Both articles will be published in the *WMJ*.

Reflections on 50 years of medicine

By William B. A. J. Bauer, MD
Ladysmith

The following is an address presented by Dr Bauer at the 50 Year Club banquet of the 1989 SMS annual meeting.

Many truths have been revealed during my 50 years in medical practice. These years have been interwoven with the threads of joy, hope, learning, and humility. When things went well, a sense of fulfillment became my joy. Hope, often born of necessity, sparked the treatment of my patients. Learning was a daily experience. Humility rose as a strength with the appreciation that the physician treats, but God heals.

I have learned that becoming a physician is not taught in medical school. Training in the understanding of disease and exposure to up-to-date treatments does not qualify young men and women as good physicians. Just as having children does not automatically make us good parents, having patients does not automatically make us good physicians. To become a good physician takes time, patience, and concern.

The process is slow. The excitement of success is balanced by the frustration of failure. One patient's appreciation is offset by another patient's dissatisfaction. Practicing medicine is an unending cycle of attainment and disappointment. Yet the physician, alert to the needs of his patients, accumulates growth in his medical skills like a snowball rolling downhill.

I have learned that, while I would not trade my lifetime of diverse medical adventures with anyone, I must admit that present day specialization and group practice make good sense for two reasons. Accumulated knowledge has become too massive for any one individual to absorb or assimilate, and the physician has more time to achieve a proper balance between his marriage to medicine and his marriage to wife and family.

I have learned that there is a great need for tort reform by our courts to control medical malpractice suits and thus alleviate the physician's need to practice defensive medicine; but only if we, as physicians, recoup our warm patient-physician relationship. Improvement in this vital relationship will come about only when we doctors touch more deeply our patients' hearts and reach less deeply into their pockets. We also must avail ourselves of the advantages of medical technology without creating an image of mechanistic robots.

During half a century of practice, my medical adventures in northern Wisconsin have added so much to my storehouse of knowledge, broadened my outlook, increased my tolerance and taught me the satisfaction of giving; but more than anything, this 50 years of interacting with people has revealed to me how much all of us need one another.

An incongruous ad from the Wisconsin Medical Journal, 1949.

At last, liability protection from people who understand...

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Physicians Insurance Company of Wisconsin is that company! We understand your needs because we're owned by the physicians we protect and are sponsored by the State Medical Society. We're the choice of more Wisconsin physicians than any other company. Shouldn't we be your choice? Contact us today for more information.

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SMS officers and directors: 1989–1990

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The SMS was created by the Territorial Legislature in 1841 and now represents more than 7,000 member physicians in Wisconsin, comprising 55 county medical societies and 26 medical specialty sections. The purpose of the Society is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society include continuing medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service for physicians, operation of a Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

Officers

President: William L. Treacy, MD, Milwaukee
President-elect: Roger L. von Heimburg, MD, Green Bay
Secretary and general manager: Thomas L. Adams, Madison
Treasurer: John J. Foley, MD, Menomonee Falls

Board of Directors

Chair: Richard H. Ulmer, MD, Marshfield
Vice chair: Raymond C. Zastrow, MD, Milwaukee

District 1: Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha counties
Richard H. Strassburger, MD, Cudahy
Huron L. Ericson, MD, Racine
Raymond C. Zastrow, MD, Milwaukee
Thomas A. Reminga, MD, Milwaukee
Thomas A. Hofbauer, MD, Menomonee Falls
Wayne H. Konetzki, MD, Waukesha
Marcia J. S. Richards, MD, Milwauke
Lucille B. Glicklich, MD, Milwaukee
Frank H. Urban, MD, Wauwatosa
William J. Listwan, MD, West Bend
Robert F. Purtell, Jr, MD, Milwaukee
George R. Schneider, MD, West Allis

District 2: Adams, Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Marquette, Richland, Rock, and Sauk counties
Sandra L. Osborn, MD, Madison
James J. Tydrich, MD, Richland Center
Peter L. Eichman, MD, Madison
Kenneth I. Gold, MD, Beloit
John D. Wegenke, MD, Madison
William L. Kopp, MD, Madison

District 3: Buffalo, Crawford, Jackson, Juneau, La Crosse, Monroe, Trempealeau, and Vernon counties
Jack M. Lockhart, MD, La Crosse

District 4: Clark, Florence, Forest, Langlade, Lincoln, Marathon, Oneida, Portage, Price, Taylor, Vilas, and Wood counties
William E. Raduege, MD, Woodruff
Robert J. Jaeger, MD, Stevens Point
Richard H. Ulmer, MD, Marshfield

District 5: Calumet, Fond du Lac, Green Lake, Outagamie, Waupaca, Waushara, and Winnebago counties
Harry J. Zemel, MD, Fond du Lac
James L. Basiliere, MD, Oshkosh
Donn D. Fuhrmann, MD, New London

District 6: Brown, Door, Kewaunee, Manitowoc, Marinette, Menominee, Oconto, Shawano, and Sheboygan counties
Joseph C. DiRaimondo, MD, Manitowoc
John E. Kraus, MD, Marinette

Continued on next page

Continued from previous page
Stephen D. Hathway, MD, Green Bay

District 7: Barron, Chippewa, Dunn, Eau Claire, Pepin, Pierce, Polk, Rusk, St Croix, Burnett, and Washburn counties
Marwood E. Wegner, MD, St Croix Falls
Philip J. Happe, MD, Eau Claire

District 8: Ashland, Bayfield, Douglas, Iron, and Sawyer counties
Robert L. Sellers, MD, Superior

President: William L. Treacy, MD, Milwaukee
Immediate past presdient: J D Kabler, MD, Madison
President-elect: Roger L. von Heimburg, MD, Green Bay
Speaker: Richard G. Roberts, MD, Madison
Vice speaker: Cyril M. Hetsko, MD, Madison

Delegates to the AMA
DeLore Williams, MD, West Allis
John K. Scott, MD, Madison
Patricia J. Stuff, MD, Bonduel
Richard W. Edwards, MD, Richland Center
John D. Riesch, MD, Menomonee Falls
Timothy T. Flaherty, MD, Neenah

Alternates to the AMA
Cyril M. Hetsko, MD, Madison
J D Kabler, MD, Madison
Kenneth M. Viste, Jr, MD, Oshkosh
John P. Mullooly, MD, Milwaukee
Richard H. Ulmer, MD, Marshfield
Jerome W. Fons, Jr, MD, Greenfield

Young Physicians Section to the AMA
Delegate: Kay E. Jewell, MD, Madison
Alternate delegate: James J. Wallace, DO, Oconto

William L. Treacy, MD
Milwaukee

President (1989–1990)

Dr Treacy graduated from Marquette University School of Medicine in 1957. An internist-rheumatologist, he served an internship at St Joseph's Hospital in St Paul, Minn, and a residency at the Mayo Clinic in Rochester. Dr Treacy is an active staff member and past chief of the Department of Internal Medicine at St Joseph's Hospital in Milwaukee. He is also an assistant clinical professor at the Medical College of Wisconsin and a past president of the Wisconsin Society of Internal Medicine. He served as a District 1 delegate to the SMS from 1979 to 1988 and was a member of the Physicians Alliance Commission from 1978 to 1981. Dr Treacy also served as chair of the Wisconsin Physicians Political Action Committee (WISPAC) Board of Directors for five years and has been a member of the SMS Medical Liability Committee since 1979.

Roger L. von Heimburg, MD
Green Bay

President-elect (1989–1990)

Dr von Heimburg graduated from the Johns Hopkins University School of Medicine in Baltimore and had his surgical training at the Mayo Clinic where he also served for two years as assistant to the staff in surgery. He was a member of the SMS Board of Directors from 1980 to 1989, serving as vice chair from 1983 to 1987 and chair from 1987 to 1989. Dr von Heimburg was president of the Brown County Medical Society in 1986. He is currently the president of the Wisconsin Chapter of the American College of Surgeons and also serves on the Council of the Wisconsin Surgical Society. In addition, he is chair of the SMS Task Force on Alternatives to the Tort System and a member of the State Board of Health Care Information.

Thomas L. Adams
Madison

Secretary and General Manager (1989–1990)

Thomas L. Adams was named secretary and general manager of the SMS in March 1987. Adams was director of the Washington, DC, office of the American Society of Anesthesiologists prior to joining the Society in April 1986 as the secretary and general manager designate. Adams formerly served as assistant executive director and lead lobbyist for the North Carolina Medical Society from 1978 until 1983 when he joined the anesthesiology group. Adams graduated from Lenoir Rhyne College in Hickory, NC. In 1988, the governor appointed Adams to the Council on Pilot Projects for the Uninsured; he was subsequently elected council chair.

J D Kabler, MD
Madison

Past President (1989–1990)

Dr Kabler is a professor of medicine and director of the University Health Service of the University of Wisconsin–Madison. A board-certified specialist in internal medicine, Dr Kabler earned his medical degree from the University of Kansas and served an internship and a residency at University Hospitals in Madison. He has served as chair of both the SMS Commission on Governmental Affairs and the Joint Practice Committee. He was a member of the Board of Directors from 1979 to 1987. Dr Kabler has also served as president of the Dane County Medical Society, the Madison Academy of Internal Medicine and the Wisconsin College Health Association.

John J. Foley, MD
Menomonee Falls

Treasurer (1989–1990)

Dr Foley has served as treasurer since 1981. He graduated from Stritch School of Medicine in Chicago and is assistant clinical professor of surgery at the Medical College of Wisconsin in Milwaukee. Dr Foley served as a director from District 1 from 1972 to 1981. He serves as an ex officio member of the Finance Committee of the Board of Directors and also serves as treasurer of the Board of Directors of SMS Services, Inc.

The first statutory recognition of the SMS was by Act 53 of the 1841 Legislative Assembly of the Territory of Wisconsin. The organization of the Society was authorized, with the declaration that ". . . well regulated medical societies have been found to contribute to the advancement and diffusion of true science, and particularly of the healing art . . ."

The organization meeting was set for the second Monday of January 1842 in Madison for the purpose of forming ". . . . a society under the name and style of the Medical Society of the Territory of Wisconsin . . ." Drs Bushnell B. Cary, M.C. Darling, Lucius L. Barber, Oliver E. Strong, Edward McSherry, E.W. Wolcott, J.C. Mills, David Walker, Horace White, Jonas P. Russell, David Ward, Jesse S. Hewett, B.O. Miller, and their associates were authorized by statute to conduct the initial organization of the Society.

Richard G. Roberts, MD
Madison

Speaker, House of Delegates (1989–1991)

First elected speaker of the House of Delegates in March 1987, Dr Roberts graduated from George Washington University Medical School in Washington, DC. He is an assistant professor of Family Medicine at the University of Wisconsin–Madison. Dr Roberts is vice chair of the SMS Medical Liability Committee and a member of the Blue Ribbon Task Force on Alternatives to the Tort System. He also serves on the American Academy of Family Physicians' Finance Committee and the Task Force on Clinic Policies for Patient Care. He is also president of the Wisconsin Academy of Family Physicians. In addition, Dr Roberts serves as an SMS representative on the Board of Governors of the Patients Compensation Fund and the Wisconsin Health Care Liability Insurance Plan.

Richard H. Ulmer, MD
Marshfield

Chair, Board of Directors
Director, District 4
(1989–1992)

Dr Ulmer was elected to the Board of Directors in 1986 and served as vice chair from 1987 to 1989. A graduate of the Stritch School of Medicine at Loyola University in Chicago, he specializes in internal medicine and cardiovascular diseases. He completed a rotating internship and residency at the University of Chicago Hospital. He was a member of the House of Delegates' Nominating Committee from 1978 to 1980 and has served as an alternate delegate to the AMA since 1983. He is a past president of the Wood County Medical Society.

Huron L. Ericson, MD
Racine

Director, District 1 (1987–1990)

A specialist in orthopedic surgery, Dr Ericson graduated from Northwestern University Medical School in Chicago. He served on the ad hoc Committee on Young Physicians before the Young Physicians Section to the AMA was established. He served as president of the Racine County Medical Society in 1982.

Cyril M. Hetsko, MD
Madison

Vice Speaker, House of Delegates (1988–1990)

A native of Montclair, NJ, Dr Hetsko graduated from the University of Rochester Medical School in Rochester, NY. He completed an internship and residency at University of Wisconsin Hospitals in Madison and served in the US Army Medical Corps from 1972 to 1975 at the US Army Medical Research Institute of Infectious Disease at Ft Detrick in Frederick, MD. He is a board-certified specialist in internal medicine. Dr Hetsko has served on the SMS Board of Directors, and he has been an alternate delegate to the AMA since 1983. Currently chair of the SMS Task Force on AIDS, Dr Hetsko is a past president of the Wisconsin Society of Internal Medicine.

Marcia J.S. Richards, MD
Milwaukee

Director, District 1 (1988–1990)

Dr Richards received her medical degree from the University of Wisconsin Medical School in Madison and completed an internship and a residency at University Hospitals. A board-certified specialist in therapeutic radiology, she is currently director of radiation oncology at St Luke's Medical Center in Milwaukee and is the president-elect of the Medical Society of Milwaukee County. She has also served as secretary-treasurer of the organization and is a past president of the Wisconsin Society of Radiation Oncologists. Dr Richards has been a delegate to the SMS since 1983. She is also active in the Wisconsin Division of the American Cancer Society, having served as chair of the Breast Cancer Detection Awareness Project and as a member of the Board of Directors.

Lucille B. Glicklich, MD
Milwaukee

Director, District 1 (1987–1990)

Dr Glicklich, who graduated from the University of Wisconsin Medical School in Madison, specializes in child psychiatry and pediatrics. She has served on the SMS Commission on Public Information and is currently a member of the Medical Liability Committee. In 1985 she served as president of the Medical Society of Milwaukee County.

Robert F. Purtell, Jr, MD
Milwaukee

Director, District 1 (1989–1992)

A family physician, Dr Purtell graduated from Marquette University School of Medicine (now the Medical College of Wisconsin) in Milwaukee and served an internship at Misericordia Hospital. He completed a residency at St Joseph's Hospital, also in Milwaukee. Dr Purtell was a member of the SMS Physicians Alliance Commission from 1977 to 1989, serving as chair for the last four years. He is also active in the American Academy of Family Physicians (AAFP). He is a member of the Wisconsin delegation to the AAFP and is also a past president of the Wisconsin Academy. In addition, he is a past president of the Marquette-Medical College of Wisconsin Medical Alumni Association.

George R. Schneider, MD
West Allis

Director, District 1 (1989–1991)

A specialist in internal medicine, Dr Schneider graduated from Marquette University School of Medicine (now the Medical College of Wisconsin) in Milwaukee and served an internship at the University of Missouri Medical Center in Columbia. He also completed a residency at the Medical College. Dr Schneider is a member of the American Society of Internal Medicine and the American College of Physicians.

Frank H. Urban, MD
Wauwatosa

Director, District 1 (1987–1990)

Dr Urban, whose specialty is dermatology, graduated from the University of Wisconsin Medical School in Madison. He is a delegate to the SMS and has served on the SMS Task Force on Health Care for the Uninsured. He is also vice chair of the Membership Committee of the Medical Society of Milwaukee County and a member of its Goals and Strategies Committee.

Wayne H. Konetzki, MD
Waukesha

Director, District 1 (1987–1990)

Dr Konetzki, a specialist in internal medicine and allergy and immunology, graduated from the University of Illinois Medical School and served an internship at Presbyterian-St Luke's Hospital in Chicago. He completed a residency at Milwaukee County Hospital. Dr Konetzki was first elected to the Board of Directors in 1981.

Raymond C. Zastrow, MD
Milwaukee

Director, District 1 (1989–1992)

Dr Zastrow, who specializes in clinical pathology, graduated from Marquette University School of Medicine (now the Medical College of Wisconsin). He served on the SMS Physicians Alliance Commission from 1977 to 1989 and is a member of the Wisconsin Physicians Political Action Committee (WISPAC) Board of Directors. He served as chair of the SMS Bylaws Committee and was an alternate delegate to the AMA in 1983–1984. Dr Zastrow has also served on the SMS ad hoc committee on the Health Policy Agenda for the American People (HPA).

William J. Listwan, MD
West Bend

Director, District 1 (1987–1990)

Dr Listwan graduated from Marquette University School of Medicine (now the Medical College of Wisconsin) and specializes in internal medicine. He has served as a member of the Physicians Alliance Commission, and currently is chair of the Medical Liability Committee. He has been a member of the Board of Directors since 1984.

Thomas A. Reminga, MD
Milwaukee

Director, District 1 (1989–1992)

Dr Reminga, whose specialty is emergency medicine, graduated from the University of Michigan Medical School. He was a member of the SMS Health Planning Commission and has also served as an alternate delegate to the SMS. He is currently president of the Medical Society of Milwaukee County and served as secretary-treasurer of that organization in 1983–1984.

Richard H. Strassburger, MD
Milwaukee

Director, District 1 (1988–1991)

Dr Strassburger received his medical degree from St Louis University. A specialist in neurosurgery, he served an internship at Milwaukee County Hospital and residencies at Milwaukee County Hospital and the University of Minnesota. Dr Strassburger is also a director of the Milwaukee County Medical Society.

William L. Kopp, MD
Madison

Director, District 2 (1989–1991)

Dr Kopp was elected to the Board of Directors in 1989. Board-certified in internal medicine and allergy and immunology, he received his medical degree from the University of Michigan in Ann Arbor and served an internship at St Luke's Hospital in Cleveland, Ohio. He completed a residency and a fellowship at the University of Michigan. Dr Kopp is a fellow in the American Academy of Allergy and Immunology and the American College of Physicians. He is also a past president of the Dane County Medical Society.

Thomas A. Hofbauer, MD
Menomonee Falls

Director, District 1 (1987–1990)

Dr Hofbauer, whose specialty is obstetrics and gynecology, graduated from Marquette University School of Medicine (now the Medical College of Wisconsin). He served an internship and residency at Milwaukee County Hospital. He is a past president of the Waukesha County Medical Society and has been a member of the SMS Board of Directors since 1980.

Kenneth I. Gold, MD
Beloit

Director, District 2 (1988–1991)

Dr Gold, whose specialty is internal medicine, graduated from the State University of New York–Downstate.

Continued from previous page

He is chairman of the SMS Commission on Continuing Medical Education, having served on the commission since 1982, and is also an editorial associate of the *Wisconsin Medical Journal*. Dr. Gold was president of the Rock County Medical Society from 1986 to 1988 and the Wisconsin Society of Internal Medicine in 1980–1981 and is a member of the Council of the American College of Physicians, Wisconsin Chapter. Dr Gold has been the medical director of the Paramedic Program in the Beloit Fire Department since 1979. He is also a member of the SMS Commission on Continuing Medical Education.

James J. Tydrich, MD
Richland Center

Director, District 2 (1988–1991)

Dr Tydrich has been a District 2 director since 1981. A 1962 graduate of the University of Wisconsin Medical School in Madison, he has been a family physician in Richland Center since 1963. He served on the SMS Committee on Cancer, from 1971 to 1974 and currently serves on the House of Delegates Nominating Committee. He served as president of Richland County Medical Society in 1965 and 1974.

Sandra L. Osborn, MD
Madison

Director, District 2 (1988–1991)

Dr Osborn, whose specialty is pediatrics, graduated from the University of Wisconsin Medical School in Madison. She served as president of the Dane County Medical Society in 1982–1983. She has also served on the SMS Committee on Women Physicians, the House of Delegates Nominating Committee, the Credentials Committee, and the Reference Committee on Scientific Affairs. Dr Osborn also served on the ad hoc Committee on Child Abuse and Neglect.

Peter L. Eichman, MD
Madison

Director, District 2 (1987–1990)

Dr Eichman, whose specialties are neurology and internal medicine, graduated from the Jefferson Medical College in Philadelphia. He served as dean of the University of Wisconsin Medical School in Madison from 1965 to 1970. He also served as deputy director of the Federal Bureau of Health Manpower Education and was a member of the SMS Committee on Mental Health. In addition, Dr Eichman has served as chair of the Task Force on Physician Review and Discipline, and he was a member of the Commission on Health Planning. He was president of the Dane County Medical Society in 1983–1984.

John D. Wegenke, MD
Madison

Director, District 2 (1989–1992)

Dr Wegenke, whose specialty is urology, graduated from the University of Wisconsin Medical School in Madison. He served an internship at San Joaquin General Hospital in Stockton, Calif, and internships in general surgery and urology at University Hospital and Clinics in Madison. He is an editorial associate for the *Wisconsin Medical Journal*.

Jack M. Lockhart, MD
La Crosse

Director, District 3 (1989–1992)

A specialist in rheumatology, Dr Lockhart graduated from Harvard Medical School and served an internship at University Hospitals of Cleveland in Ohio. He also completed fellowships at the University of Minnesota Medical School in Minneapolis. Dr Lockhart has served as a delegate to the SMS and as a member of the Nominating Committee since 1986. He has also served on the SMS Physicians Alliance Commission since 1980 and is a member of the Executive Committee of the La Crosse County Medical Society.

Robert J. Jaeger, MD
Stevens Point

District 4 (1988–1991)

Dr Jaeger is a specialist in obstetrics and gynecology. He attended the University of Wisconsin Medical School and served an internship and residency at Milwaukee County General Hospital. Dr Jaeger is an assistant clinical professor in the Department of Obstetrics and Gynecology at the Medical College of Wisconsin and serves on the Board of Directors of the University of Wisconsin Medical Alumni Association. He is a member of the SMS Committee on Maternal and Child Health.

Harry J. Zemel, MD
Fond du Lac

Director, District 5 (1988–1991)

Dr Zemel was first elected to the Board in 1987. He graduated from the University of Missouri School of Medicine and specializes in pathology. Dr Zemel was president of the Fond du Lac County Medical Society in 1979.

William E. Raduege, MD
Woodruff

Director, District 4 (1989–1992)

Dr Raduege was first elected to the Board of Directors in 1986. A family practitioner, he graduated from the University of Wisconsin Medical School in Madison. He has been a member of the SMS Commission on Mediation and Peer Review since 1981 and a delegate from the Oneida-Vilas County Medical Society since 1977.

James L. Basiliere, MD
Oshkosh

Director, District 5 (1989–1992)

Dr Basiliere was first elected to the Board of Directors in 1986. A board-certified specialist in internal med-

Continued from previous page
icine, Dr Basiliere graduated from the University of Wisconsin Medical School in Madison and served an internship and a residency at the San Diego Naval Hospital. He is a past president of the Winnebago County Medical Society, past president of the Fox Valley Academy of Medicine and past secretary of the Oshkosh Area Physicians Association. Dr Basiliere has been a member of the Board of Directors of the Wisconsin Medical Alumni Association since 1988.

Donn D. Fuhrmann, MD
New London

Director, District 5 (1988–1990)

A board-certified family practice specialist, Dr Fuhrmann graduated from the University of Wisconsin Medical School in Madison, and served an internship there as well. He served a residency at St Luke's Hospital in Milwaukee. Dr Fuhrmann is chief of the medical staff at the New London Family Medical Center and is also an assistant clinical professor at the UW Medical School. He has been secretary of the Waupaca County Medical Society since 1982.

John E. Kraus, MD
Marinette

Director, District 6 (1989–1992)

Dr Kraus has been a member of the Board of Directors since 1986. A specialist in internal medicine, he graduated from the University of Buffalo School of Medicine. He served an internship at the Millard Fillmore Hospital in Buffalo and residencies in nephrology at Millard Fillmore, Georgetown University Hospital, and the Cleveland Clinic in Cleveland, Ohio.

Joseph C. DiRaimondo, MD
Manitowoc

Director, District 6 (1988–1991)

Dr DiRaimondo has served on the Board of Directors since 1985. A specialist in orthopedic surgery, he graduated from Washington University Medical School in St Louis and served an internship and residency at University Hospital and Clinics. He serves on the SMS Physicians Alliance Commission and is a past president of the Washington County Medical Society.

Stephen D. Hathway, MD
Green Bay

Director, District 6 (1989–1992)

A pathologist, Dr Hathway graduated from the Indiana University School of Medicine in Indianapolis and completed an internship and residency at the South Bend Medical Foundation in South Bend, Ind. Dr Hathway is a member of the SMS Committee on Health Care Quality, Costs and Utilization and served on the Committee on Alcoholism and Other Drug Abuse. He is also a past secretary of the Brown County Medical Society.

Marwood E. Wegner, MD
St Croix Falls

Director, District 7 (1989–1992)

Dr Wegner has been a member of the Board of Directors since 1983. A graduate of the University of Minnesota School of Medicine, he specializes in family practice. He served an internship at the US Public Health Service in Staten Island, NY. Dr Wegner has served on the SMS Committee on Alcoholism and Other Drug Abuse.

Philip J. Happe, MD
Eau Claire

Director, District 7 (1988–1991)

A specialist in internal medicine, Dr Happe graduated from Creighton University Medical School in Omaha, Neb, and served an internship at Ancker and St Paul Ramsey hospitals in St Paul, Minn. He completed a residency at Creighton University Affiliated Hospital. He is a past president of the Eau Claire-Dunn-Pepin County Medical Society. Dr Happe was first elected to the Board of Directors in 1985.

Robert L. Sellers, MD
Superior

Director, District 8 (1987–1990)

Dr Sellers graduated from the University of Illinois School of Medicine and is in family practice. He is a member of the SMS Finance and Executive committees and also serves on the Wisconsin Physicians Political Action Committee (WISPAC) Board of Directors. In addition, Dr Sellers is a past president of the Douglas County Medical Society.

Board of Directors Committees: 1989–1990

Executive Committee

William L. Treacy, MD, Milwaukee, chair
President of the Society

Roger L. von Heimburg, MD, Green Bay
President-elect of the Society

J D Kabler, MD, Madison
Immediate Past President of the Society

Richard H. Ulmer, MD, Marshfield
Chair of the Board

Raymond C. Zastrow, MD, Milwaukee
Vice Chair of the Board

Harry J. Zemel, MD, Fond du Lac
Chair, Finance Committee

Richard G. Roberts, MD, Madison
Speaker of the House of Delegates

Robert F. Purtell, Jr, MD, Milwaukee
Director at large

Robert L. Sellers, MD, Superior
Director at large

Ex Officio non-voting members:
President and president-elect of SMS Auxiliary

Finance Committee of the Board

Harry J. Zemel, MD, Fond du Lac, 1991, chair

Philip J. Happe, MD, Eau Claire, 1991

Jack M. Lockhart, MD, La Crosse, 1992

Thomas A. Reminga, MD, Milwaukee, 1989

Robert L. Sellers, MD, Superior, 1990

James J. Tydrich, MD, Richland Center, 1991

Raymond C. Zastrow, MD, Milwaukee, 1992

John J. Foley, MD, Menomonee Falls
Treasurer, ex officio

Charitable, Educational and Scientific Foundation: 1987–1988

(See listing elsewhere in this issue.)

Continued on next page

SMS Services, Inc: 1989

Board of Directors

William P. Crowley, Jr, MD, Madison, 1989
President

John P. Mullooly MD, Milwaukee, 1990
Vice President

Thomas L. Adams, Madison, 1990
Secretary

John J. Foley, MD, Menomonee Falls, 1989
Treasurer

LeRoy A. Johnson, Madison, 1991
Executive Vice President

Timothy T. Flaherty MD, Neenah, 1991

William A. Nielson MD, West Bend, 1991

Jerome W. Fons, Jr, MD, Cudahy, 1989

Allen O. Tuftee MD, Beloit, 1989

SMS Auxiliary: 1988–1989

Elected officers

President: Miep Kempthorne, Route 2, Box 45, Spring Green 53588

President-elect: Betsy Yao, 1267 Satinwood Lane, Whitewater 53190

Vice President: Sandra Kontra, 16 N Vincennes Circle, Racine 53402

Secretary: Jean Lawrence, PO Box 1514, Fond du Lac 54935

Treasurer: Roberta Ortwein, 218 16th St, Racine 53403

Immediate Past President: Carol Phillips, 1410 N Broadway, Marshfield 54449

Directors

(Two-year terms)

Bay: Halina Stankevych, 1016 S Webster, Green Bay 54301

Bluff: Susan Cochrane, 1211 White Pine Dr, Eau Claire 54701

Capital: Shafqut Khan, 716 Lakeshore Dr, Beaver Dam 53916

Fox Valley: Nancy Saggio, W5035 Reinhardt Rd, Fond du Lac 54935

River: Fe Abellera, 1233 Lauderdale, Onalaska 54650

One-year term

Gateway: Position to be filled.

Kettle Moraine: Carol Veranth, 6700 Brook Rd, Franksville 53126

Lakeshore: Angela Bell, 313 Cleveland, Manitowoc 54220

North Woods: Patricia Swanson, 1502 W Marshall, Rice Lake 54868

Rib Mountain: Kay Rossman, 3348 N 13th St, Wausau 54401

Appointed officers

Historian: Vel Steidinger, 1666 County B, Platteville 53818

Parliamentarian: Mary Smigielski, 3351 W Poe St, Milwaukee 53215

Executive Secretary: LaVerne Bartel, 330 E Lakeside St, Madison 53715

SMS President William L. Treacy, MD, (left) presents JD Kabler, MD, (right) with the Past President's Plaque.

Constitution and Bylaws

Constitution

Article I
Name of the Association

The name and title of this organization shall be the State Medical Society of Wisconsin.

Article II
Purpose

The purpose of the Society is to bring together the physicians of the state of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws. As used in the Constitution and Bylaws, "physician" means a doctor of medicine or a doctor of osteopathy licensed in Wisconsin.

Article III
Component societies

Component societies shall consist of those county medical societies chartered by the House of Delegates of this Society.

Article IV
Composition of the association

This Society shall consist of members who shall be the members of and certified by the component county medical societies; and whose dues and assessments for the current year have been received by the Society secretary in accordance with the schedule provided in the Bylaws.

Article V
House of Delegates

The House of Delegates shall be the legislative body of the Society and shall consist of:

(1) delegates elected by the component county medical societies,

(2) one delegate representing each specialty section of the Society organized under the Bylaws,

(3) a speaker,

(4) a vice speaker.

The officers of the Society enumerated in Article IX of this Constitution, directors, and past presidents of the Society shall be ex officio members, but without the right to vote, except that if they have been duly seated as delegates, they shall have the right to vote.

The speaker and vice speaker shall be elected by and from the House of Delegates for two-year terms, and shall be limited to three consecutive full terms in their respective offices. While holding these offices, they shall be members of the House at large and shall not represent any component county society or specialty section.

Article VI
Board of Directors

The Board of Directors, hereinafter referred to as "Board," shall have full authority and power of the House of Delegates between sessions of the House. It shall consist of the directors, immediate past president, president, president-elect, speaker and vice speaker of the House of Delegates. The secretary and the treasurer shall be ex officio members of the Board, but without the right to vote. A majority of its voting members shall constitute a quorum.

Directors shall be elected from eight geographic districts whose boundaries shall be determined by the House of Delegates. There shall be elected one director from each district. In addition, there shall be elected director(s) from each district based on a formula using the number of members in each district as the numerator and the total membership of the Society as the denominator, rounded to the nearest whole number. This calculation shall be made every third year, and, as nearly as possible, is to provide for no more than 31 district directors and shall be based on the year end membership totals. The number of directors established for each district shall be approved by the Board and shall be reported to the districts by the Secretary before annual elections to the Board. As nearly as possible, one-third of the members of the Board shall be elected each year.

Each director shall be nominated and elected only by the elected delegates of the county medical society or societies from the district in which the director's principal place of practice is located. Such election shall be subject to the approval and confirmation of the House of Delegates.

The terms of the directors shall be for three years. No individual shall be permitted to serve more than three consecutive three-year terms as director, and no more than a total of six terms of service as director shall be permitted.

Article VII
Specialty Sections

The House of Delegates shall provide for a division of the Society into specialty sections.

Article VIII
Meetings

Sec 1. The Society shall hold an annual meeting, at which time the House of Delegates shall meet to conduct its business. The annual meeting may also include scientific sessions as determined by the Board.

Sec 2. The place for holding each annual meeting shall be fixed by the House of Delegates, or by failure to act, such authority is delegated to the Board. The time and the place for holding each annual meeting shall be approved by the Board.

Sec 3. Special meetings of the House of Delegates shall be called by the speaker on written request of twenty delegates representing at least 10% of the component county medical societies, or on request of a majority of the Board. When a special meeting is called, the speaker shall set the time and place. The secretary shall mail a notice to the last known address of each member of the House of Delegates at least 20 days before the date of the special meeting. The notice shall specify the time and place of the meeting and the purpose for which the meeting is called. The meeting shall consider no business except that for which it is called.

Article IX
Officers

Officers of this Society shall be a president, a president-elect, a secretary, and a treasurer. The president-elect and treasurer shall be elected annually by the House of Delegates. The secretary shall be elected annually by the Board. The president-elect shall automatically succeed to the office of president at the conclusion of the term as president-elect. The treasurer shall be limited to nine consecutive terms.

No person shall hold more than one of the following offices concurrently: president, president-elect, secretary, treasurer, speaker, vice speaker, director. Incumbents shall serve until their successors are elected and installed.

Article X
Funds and expenses

Funds may be raised by annual dues or by assessment on the members, or in any other manner approved by the House of Delegates. The House may establish regular and special classifications of membership. Dues, if any, shall be applied equitably to all members in each class.

All resolutions adopted by the House of Delegates providing for appropriations shall be referred to the Board for implementation. All expenditures approved by the Board shall be included in the annual budget.

Article XI
Referendum

The House of Delegates may, by a two-thirds vote of those registered at that session, submit any question to the membership of the Society for its vote, except amendments to the Constitution. Such amendments are governed by Article XIII. The House shall determine prior to submission whether a referendum shall be advisory or binding, and so advise the membership at the time of submission. A majority vote of all the members of the Society shall determine the question on a binding referendum.

Article XII
Seal

The Society shall have a common seal. The power to change or renew the seal shall rest with the House of Delegates.

Article XIII
Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the members of the House present at any annual meeting, provided that such amendment shall have been introduced in the form of a constitutional amendment in open session at the previous annual meeting, and that it shall have been published at least once during the year in the journal of this Society, or sent to each member of the Society at least two months before the meeting at which final action is to be taken.

Bylaws

Chapter I
Membership

Sec 1. The name of a physician on the official roster of this Society, after it has been properly reported by the secretary of the county society, shall be prima facie evidence of membership and of the right to benefits.

Sec 2. No person whose name has been dropped from the roll of members of a component society or this Society shall be entitled to any of the rights or benefits of this Society, except that such rights and benefits shall continue during the period of an appeal by such person to the Board of Directors.

Sec 3. Every physician who holds a license to practice medicine and surgery in Wisconsin shall be eligible to apply for membership. Each county society shall be the judge of the initial and continuing qualifications of its members, as well as the appropriate membership classification, subject to review and final decision by the Board of this Society. Members will conduct

themselves in a manner which is not in conflict with the purposes for which the Society is organized and is operating.

Sec 4. By provision of its constitution or bylaws, a county society may require that an applicant shall have practiced within its jurisdiction for a period of one year as a condition for election to membership; or that an applicant may first be elected to membership for a term of one year only, then resubmit to election by vote of the county society without limitations as to term.

Sec 5. A member of a component society whose license has been revoked, suspended, non-renewed, or voluntarily surrendered, shall be immediately and automatically suspended from membership as of the date of revocation, suspension, non-renewal, or voluntary surrender, pending definitive action by the Board.

Sec 6. A physician's county society membership must be held in that county in which the physician's principal practice is located. However, a physician living near a county line may hold membership in that county most convenient for attending meetings, with concurrence of the component society in which the principal place of practice is maintained.

Sec 7. A member whose principal practice is moved from within the territorial limits of a component medical society to the territory of another component of the State Society shall not be eligible to continue membership in the first such society after the expiration of the calendar year in which such move shall have occurred. Such member shall, however, be eligible to apply for membership anew, or by transfer to the society into whose jurisdiction the principal practice has been moved. The member shall be given a written certificate of transfer for transmission to the secretary of the society in the county to which he has moved. Pending acceptance or rejection by the society in the county to which he has moved, such member shall be considered to be in good standing in the first society and in the State Society until the end of the period for which dues have been paid.

Sec 8. When the principal practice of a member in good standing in a component society is moved outside the borders of this state, active membership in such component society and in the State Society may be continued by fulfilling all requirements of membership except residence pending acceptance as a new or transfer member by the society of the area to which the practice has been transferred. The period of such continuing membership in this state shall cease upon acceptance by a society in the new area of practice, and shall in no event continue beyond two full calendar years after that in which the practice location has been transferred.

Sec 9. *Membership classifications.* Members defined in this section, except affiliates, shall have all the rights and privileges of the Society and shall pay dues and assessments, as indicated, as a requirement of continued membership.

A. *Regular.* Regular members of this Society consist of all the regular members in good standing of the component county societies.

B. *Special.* Included in this classification are the following categories of members who by virtue of their special circumstances are entitled to reduced dues or waiver thereof:

(1) *Part-time practice.* Any physician, regardless of age, who practices 1,000 hours or less during a calendar year, but does not qualify under section 9.B.(5), may upon application, recommendation by the county medical society, and approval by this Society, be placed in this special category.

(2) *Resident.* Physicians in approved training programs as hospital residents or as research fellows who are licensed to practice medicine and surgery in Wisconsin. Such special membership category can be maintained for a maximum of five (5) consecutive years.

(3) *Temporary military service.* Members who are inducted into the United States Military or Public Health Service and serve in such capacity for not more than five (5) years.

(4) *Associate.* Members who suffer a disability preventing them from practicing medicine with resulting serious financial reverses which would make the payment of dues a matter of personal hardship. Such membership shall be on an annual basis, upon recommendation of the county society and approval by the Board of this Society.

(5) *Retired.* Members who have retired completely from the practice of medicine, or who practice 240 hours or less during a calendar year, upon recommendation of the county society and approval by this Society.

(6) *Life.* Those members of the State Medical Society of Wisconsin who have been members of this or other state medical societies for 50 years, or are past presidents of the State Medical Society of Wisconsin. They shall receive a certificate of Life Membership.

(7) *Honorary.* Members who have been elected to a similar classification by their county society because of outstanding contributions to the medical profession, upon approval by the Board of this Society.

(8) *Over age 70.* Members who are age 70 effective January 1 of the following year.

C. Affiliate. Persons who are not otherwise eligible for membership may become affiliated with this Society

in one of the following categories. Their dues or assessments, as well as rights and privileges as affiliate members, shall be determined by the Board.

(1) *Candidate.* Upon application, a county medical society or this Society may confer upon any person then attending a medical school in Wisconsin or fulfilling a postgraduate obligation prior to eligibility for licensure the status of candidate member.

(2) *Scientific fellow.* The Board may by invitation and unanimous consent confer upon any person engaged in teaching of or research in one or more of the basic sciences at an accredited college or university, and not holding the degree of Doctor of Medicine or Osteopathy, the status of Scientific Fellow.

(3) *Emeritus.* Retired members who have chosen not to renew their license, at the discretion of the Board.

Sec 10. *Dues and Assessments.* Members shall pay dues and assessments as follows:

A. Regular members: full dues and assessments.

B. Physicians in part-time practice or over age 70: one-half of regular member dues and assessments.

C. Physicians in residency or fellowship training: dues and assessments are to be determined by the Board of Directors.

Dues and assessments for all other categories shall be waived, except as may be determined by the Board for affiliate members.

Chapter II
House of Delegates

Sec 1. Each component county society shall be entitled to send one delegate and one alternate to the House of Delegates for each forty regular and special members or majority fraction thereof in this Society, provided, however, that each county society shall be entitled to at least one delegate and one alternate from that county society.

For purposes of this section, the number of members as of the close of the calendar year preceding the first session of the House of Delegates at the annual meeting shall determine the number of delegates to which a county society shall be entitled.

The secretary of each county society will send a list of such delegates and alternates to the secretary of this Society by the end of each calendar year preceding the year in which such delegates are elected to serve.

Sec 2. One-fourth of the members of the House of Delegates registered, representing one-fourth of the county medical societies in the state, shall constitute a quorum of the House of Delegates. All meetings of the House of Delegates shall be open to members of the Society.

Sec 3. The speaker shall preside at the meetings of the House of Delegates.

Sec 4. The vice speaker shall officiate for the speaker in the latter's absence or at his request. In case of death, resignation, or removal of the speaker, the vice speaker shall officiate during the unexpired term.

Sec 5. The speaker shall appoint members of reference committees from among the members of the House of Delegates. These committees shall consider and make recommendations to the House relative to resolutions, reports of officers, reports of commissions and committees, financial and other matters germane to the business of the House. The speaker shall also appoint a credentials committee and such other committees as deemed necessary.

Sec 6. The House of Delegates shall elect delegates to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

Sec 7. The House of Delegates shall have authority to create committees for special purposes and to appoint members of the Society who need not be members of the House of Delegates. Such committees shall report to the House of Delegates, and their members may be present to participate in the debate on their reports.

Sec 8. It shall receive for appropriate action the annual reports of the treasurer, secretary, and chairman of the Board of Directors.

Sec 9. Unanimous consent of the House of Delegates shall be required for the introduction of any new resolution or business not filed in proper form with the secretary's office of the Society two months before the first session of the House of Delegates. This section shall not apply to new business or resolutions presented by the Board of Directors or any member thereof, the constitutional officers, committees of the Society or of the House of Delegates, or officers of the House of Delegates.

Sec 10. All questions of an ethical nature brought before the House of Delegates shall be referred to the Board of Directors without discussion.

Chapter III
Annual election

Sec 1. The House of Delegates, at its first session of the annual meeting, shall elect a Committee on Nominations consisting of one (1) delegate for each district, except that in any district having 500 or more regular and special members, there shall be elected one (1) additional delegate for each additional 500 members or majority fraction thereof. One (1) delegate representing the specialty sections shall also be appointed. This committee shall become operative at the close of the final session of that annual meeting and shall function

Continued on page 50

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Continued from page 48
until the close of the final session of the following year's annual meeting. The incoming committee shall meet with the existent committee but without vote during the overlapping days of the annual meeting. Any vacancy occurring in the Committee on Nominations between the date of its formation and the time of its reporting shall be filled by appointment by the director or directors of the district in which the vacancy occurs, provided that if the vacancy occurs in the representation from the specialty sections, such vacancy shall be filled by ballot from among the section delegates.

The Committee on Nominations shall convene at least two (2) months prior to the annual meeting of the House of Delegates to prepare a slate of candidates. This meeting, to be held at a time, date and location published to the general membership at least two (2) months before this meeting, shall include an open session of not less than one (1) hour to allow individual nomination of candidates. The committee shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the names of one or more members for each of the positions to be filled.

Sec 2. The report of the Committee on Nominations and elections shall be the first order of business of the House of Delegates at the third session of the annual meeting.

Sec 3. The House of Delegates shall elect the president-elect, the treasurer, the speaker and vice speaker of the House of Delegates, and the delegates and alternates to the American Medical Association. Where there is no contest, a majority vote without ballot shall elect. All other elections shall be by separate ballot for each individual position, and a majority of the votes cast shall be necessary to elect. If no nominee receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped, except where there is a tie, and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of the votes cast.

Sec 4. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Chapter IV
Duties of officers

Sec 1. The president is the chief constitutional officer of the Society. Within the limits of the Constitution, Bylaws, and policies of the House of Delegates and Board of Directors, the president shall have the following responsibilities and commensurate authority:

a. deliver an annual address to the House;
b. serve as a member with right to vote on the Board;
c. preside at meetings of the Executive Committee of the Board;
d. participate, ex officio and without the right to vote, in sessions of the House;
e. initiate and propose policies and programs that will further the goals and objectives of the Society for consideration by the House, Board, commissions and committees;
f. support and articulate policies and programs adopted by the Board and the House.
g. promote physician interest and active participation in the Society.

Sec 2. The president-elect shall act for the president in his absence or disability. If the office of president should become vacant, the president-elect shall succeed to the presidency. In case of vacancy in the office of both president and president-elect, the Board shall appoint one of its members as acting president until the next meeting of the House of Delegates.

Sec 3. The treasurer shall be responsible to the Board of Directors, and shall advise and assist it in making decisions on investment policy and financial matters. The duties of the treasurer shall include the following:

a. be responsible for all funds due the Society, together with bequests and donations;
b. pay money out of the treasury only on written order of the secretary;
c. subject the treasurer's accounts to such examination as the House of Delegates may order;
d. annually report on the financial standing of the Society, including a balance sheet and income and expense report; and
e. give bond in such amount as the Board may provide.

Sec 4. The secretary is the chief executive officer of the Society charged with the execution of policy as created and defined by the House of Delegates and the Board of Directors. The secretary shall serve as an ex officio, nonvoting member of the Board; be responsible to the Board and serve as its secretary; assist the Board and officers in making decisions and implementing actions; share convictions and argue their merits; perform the functions ordinarily assigned to the office of secretary, and make an annual report to the House of Delegates.

"As chief executive officer the secretary shall, within the limits of the Constitution and Bylaws and Board operating policies, effectively perform the general managerial function for the Society and all of its divisions, activities, and personnel including employment and, as necessary, termination of all employees; be responsible for and have the necessary authority to direct, supervise, and coordinate all programs, projects and major activities of the Society and all wholly

owned subsidiaries; formulate and recommend for approval of the Board basic policies and programs which will seek to achieve the objectives and goals of the Society; fully inform the Board on the condition and operation of the association; cooperate with the Board and Treasurer in establishing a program of fiscal responsibility for the Society including development, recommendation and upon approval, operation within an annual budget; act to insure that all funds, physical assets, and other property of the Society are appropriately safeguarded and administered; develop and maintain effective internal and external communications with the membership and other organizations and agencies, both public and private, so as to enhance the positions of the Society and the objectives of its membership; and through effective management and leadership, achieve economic, productive performance, forward-looking programming, and constructive growth of the Society."

Note: Following adoption of this Bylaw change (Sec 4 above), in 1987, the Board agreed to develop and maintain a set of current "operating policies" between itself and the secretary to detail the more specific duties and expectations important to a good working relationship between the Board and the secretary.

Chapter V
Board of Directors

Sec 1. The Board of Directors shall be the executive body of the Society. Between meetings of the House of Delegates it shall exercise the power conferred on the House of Delegates by the Constitution and Bylaws.

Sec 2. The Board shall meet during the annual meeting and at such other times as necessity may require, subject to the call of the chairman or on petition of three directors. It shall hold an annual meeting for purposes of organization and other business.

Sec 3. The Board shall elect a chairman and a vice chairman from among its voting members. It may create such further offices or combine or abolish them as it sees fit in the management of its affairs and in the discharge of its responsibilities. Its chairman shall submit an annual report to the House of Delegates including all major actions and policy decisions of the preceding year.

Sec 4. Each director shall be the organizer and mediator for the district. Directors shall visit each county in their district as needed for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and to keep informed of the activities of the component societies in the district. Each director shall arrange for an annual conference or caucus with the societies or their delegates within the district, at which time information shall be disseminated concerning the activities of the State Medical Society and component societies within the district. Each director shall report as necessary to the Board. The necessary traveling expenses incurred by each director in the line of duties herein imposed may be allowed on a proper itemized statement, but this shall not be construed to include the expense of attending the annual meeting of the Society.

Sec 5. The Board of Directors shall be the judicial body of the Society. It may decide any questions of conduct or discipline of members, or any questions involving the rights and standing of members, whether in relation to other members, to the component societies, or to this Society. It shall develop and publish procedures for discipline, including denial of initial or continuing membership, for those physicians who fail to provide quality health care, failure to pay dues, loss of license to practice, or other cause. Its decisions in all cases shall be final, including the right to expel a member should a component society fail to do so after being so requested by the Board.

The Board's right to original jurisdiction includes but is not limited to the right to decide cases when:

a. The affected parties reside within the boundaries of a single county medical society and that society does not wish to assume jurisdiction;
b. the affected parties reside in two or more component medical society jurisdictions.

The Board also has within its authority the right to appoint a commission or commissions to which any or all such matters may be referred for investigation, evaluation and decision to acquit, admonish, or otherwise discipline as appropriate. A member may appeal to the Board the decision of such commission or the action of a county society as provided in Chapter X, Section 3. If the recommendation is for suspension or expulsion of a physician from Society membership, final action must be taken by the Board.

Sec 6. Charters shall be issued to county societies only on approval of the Board, with ratification by the House of Delegates, and shall be signed by the president and secretary of this Society. Upon the recommendation of the Board, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and Bylaws.

Sec 7. In sparsely settled sections, the Board shall have authority to organize the physicians of two or more counties into societies. These societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec 8. The Board shall provide for and superintend the issuance of all publications of the Society including proceedings, transactions and memoirs, and shall have the authority to appoint an editor of the journal and such assistants as it deems necessary.

Sec 9. The Board shall select a qualified independent accounting firm and receive an annual audit of all accounts of this Society. With the treasurer, it shall supervise the investment of funds. The Board shall adopt an annual budget providing for the necessary expenses of the Society.

Sec 10. The Board may, by interim appointment, fill any vacancy in office not otherwise provided for which may occur during the interval between annual meetings of the House of Delegates. The appointee shall serve until a successor has been elected and has qualified.

When a district initially qualifies for an additional director, such position shall be considered new and not a vacancy to which the Board is authorized to make an interim appointment. Such new position shall be filled by election at the next meeting of the House of Delegates in the manner provided by Article VI of the Constitution. The initial term shall be so established as to maintain the election of substantially one-third of the directors each year.

Sec 11. The Board may elect as secretary one who need not be a physician or a member of the Society.

Sec 12. The Board shall provide such facilities for the Society as may be required to properly conduct its business.

Chapter VI
Commissions and committees

Sec 1. The Board shall appoint such commissions and committees, either permanent or ad hoc, as it deems necessary to properly conduct the affairs of the Society. Membership on such committees and commissions shall be limited to members of the Society and its Auxiliary. Nonmembers of the Society or its Auxiliary may be appointed as special representatives should their expertise and knowledge be of benefit to the goals of such commissions or committees. Such individuals shall not have the right to vote or hold office.

Each commission and committee shall have the duty of being informed on matters within the area of its special interest. They shall represent the Society's interests by continual contacts with voluntary and governmental agencies having related concerns with the intention of coordinating efforts to serve the health interests of the people of Wisconsin. They shall develop recommendations from their studies and activities for action by the Board or House of Delegates.

Sec 2. Specialty sections shall be regarded as special committees of the Society from which the Board or any commission or committee may seek advice and assistance on matters of special or general concern to the profession and the health of the people of Wisconsin. The specialty sections will be expected to give special requests prompt consideration and response so as to enable the Society to make maximum use of their resources.

Chapter VII
Dues and assessments

Sec 1. The annual dues and assessments of this Society shall be determined by the House of Delegates and shall be levied per capita on the members. Dues and assessments shall be payable as determined by the Board of Directors. Any member whose current year's dues have not been received by the secretary on or before the dues payment deadline, as established by the Board of Directors, shall be deemed in arrears and shall be removed from the membership rolls of the county society and this Society until such time as full dues for the current year have been received.

Sec 2. The record of payment of dues and assessments on file in the offices of this Society shall be final as to the fact of payment by a member and to the right to participate in the business and proceedings of the Society or the House of Delegates and to any other benefits and privileges of membership.

Chapter VIII

The Board of Directors shall adopt ethical guidelines for the members of this Society.

Comment: On July 18, 1981, the Board of Directors adopted the Principles of Medical Ethics of the AMA as the ethical guidelines of the Society.

Chapter IX

The current edition of Sturgis Standard Code of Parliamentary Procedure governs this organization in all parliamentary situations that are not provided for in the law or in its charter, constitution, bylaws, or adopted rules.

Chapter X
County societies

Sec 1. All present county societies or those that may hereafter be organized in this state shall, upon application to the Board of Directors, receive charters from this Society, provided that their constitutions and bylaws have been submitted to the Board and found in conformity with the Constitution and Bylaws of the State Medical Society. All revisions shall be submitted to the Society, approved by the Board, and filed with the secretary. Where a county society has lost or

Continued on page 54

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Continued from page 52
misplaced its constitution and bylaws, the model constitution and bylaws for county medical societies, as last approved by the Board, shall be deemed to apply.

Sec 2. Only one component medical society shall be chartered in each county.

Sec 3. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Board of Directors of the State Society. Its decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Board of the State Society for final determination. The mechanisms and procedures which apply to the appeal process shall be those adopted by the Board.

Sec 4. Each component county society shall elect one or more delegates and may elect an equal number of alternates to substitute for any absent delegates from that component society, for a term of two calendar years, to represent it in the House of Delegates of this Society, in accordance with Chapter II, Section 1, of these Bylaws. The term of office shall begin on January 1 of the year succeeding the election of such delegates and alternates.

Sec 5. The secretary of each county society shall keep a roster of its members.

Chapter XI
Specialty sections

Sec 1. The House of Delegates shall establish specialty and special sections within the Society. It shall have the power to combine, enlarge, or discontinue any or all of such sections so established using the following guidelines:

a. For specialty section to be designated it must represent a specialty which is represented in the American Medical Association House of Delegates and
b. Have at least 20 members of the specialty who are members of this Society.
c. If no representative from the specialty section registers as a representative of that section for three (3) consecutive annual meetings, the specialty section will be dropped with the option of reapplying after one year, provided the above criteria are met.
d. From time to time special sections not meeting the above criteria may be established by the House of Delegates.

Sec 2. Such sections so established shall be based upon those divisions of medicine in which the various members possess a special interest. Qualifications for membership in any section shall be established by the members of such section, subject to approval of the Board of Directors, Scientific meetings of a section shall be open to all members in good standing of the State Medical Society.

Sec 3. The officers of each section shall be elected by and from its membership. The terms of such officers shall be for one year, but any officer may be reelected.

Sec 4. No section shall have the power to bind the State Medical Society by any resolution or other action. No such resolution or action shall be publicized unless it shall first have been approved by the House of Delegates, or by a majority of the Board when the House is not in session. No resolution adopted by any section shall be effective until likewise so approved.

Sec 5. Each section shall elect a delegate and an alternate to the House of Delegates. The term shall be for two calendar years without limitation on number of terms.

Sec 6. The specialty sections of the Society shall be considered an integral part of the working committee structure of the Society as outlined in Chapter VI of these Bylaws.

Chapter XII
Amendments

These Bylaws may be amended at any annual meeting by a majority vote of the delegates present, if the proposed amendment has been properly submitted to the House of Delegates and has laid over for one session of that annual meeting.

Charter law

Chapter 148

148.01(1) State society. The State Medical Society of Wisconsin is continued with the general powers of a corporation. It may, from time to time adopt, alter and enforce constitution, bylaws and regulations for admission and expulsion of members, election of officers, and management.

(2) A member expelled from a county medical society may appeal to the state society, whose decision shall be final.

148.02(1) County societies. The physicians and surgeons, not less than five in number, of the several counties, except those wherein a county medical society exists, may meet at such time and place at the county seat as a majority agree upon and organize a county medical society, and when so organized it shall be a body corporate by the name of the medical society of such county, shall have the general powers of a corporation, and may take by purchase or gift and hold real and personal property. County medical societies now existing are continued with the powers and privileges conferred by this chapter.

(2) Physicians and surgeons who, before April 20, 1897, received a diploma from an incorporated medical college or society of any of the United States or territories or of any foreign country, or who shall have received a license from the state board of medical examiners, shall be entitled to meet for organization or become members of the county medical society.

(3) If there be not a sufficient number of physicians and surgeons in any county to form a medical society they may associate with those of adjoining counties, and the physicians and surgeons of not more than fifteen adjoining counties may organize a medical society under this chapter, meeting at such time and place as a majority agree upon.

(4) A county medical society may from time to time adopt, alter and enforce constitution, bylaws and regulations for the admission and expulsion of members, election of officers, and management, not inconsistent with the constitution, bylaws and regulations of the state society.

148.03 Service insurance corporations for health care. The state medical society or, in a manner approved by the state society, a county society, may establish in one or more counties of this state a service insurance corporation for health care under ch. 613. Note on §148.03, 447.13, 449.15 and 450.13: ch 613 provides in general terms for the creation, governance and regulation of service insurance corporations for any kind of health care, as well as for other types of services. All that is needed in each authorizing chapter for professional societies is a brief section giving the appropriate professional society the power to organize a ch. 613 corporation. Section 148.03 creates that section for health care.

One basic restriction results from the repeal of the old enabling sections: none of the professional societies will be able to organize a service insurance plan within its own corporate structure. It is a mistake to permit such a mixing of professional and insurance activities within the same corporation. The society can, of course, control the service insurance corporation it creates under ch. 613, but the service insurance corporation will be legally separate. This will lead to more effective (and appropriate) control by the insurance commissioner, who should neither be empowered nor compelled, as arguably he was under the old statutes, to have any concern about the purely professional activities of the societies, because of the impossibility of disentangling the insurance and professional activities carried on by a single corporation.

Fred J. Pfeifer, MD, of New London, cranks up his 1924 "snowmobile."

Commissions and committees: 1989–1990

Commissions

Terms expire at the annual meeting of the year appearing after each member's name. Chairs and vice chairs of commissions and committees are elected at the first meeting following the annual meeting, and the *Blue Book* is prepared prior to most of these elections, so the chairs and vice chairs listed here are subject to change and some commissions and committees will not include these designations.

Continuing Medical Education.
This commission shall consist of up to 20 appointed members and the deans of the two medical schools in Wisconsin, or their designees, with vote. It shall be responsible for all matters relating to the whole continuum of medical education, ie, medical school and residency training as well as lifetime medical learning (continuing medical education). In addition, it shall be responsible for liaison with the medical schools in Wisconsin, their students, residents, fellows and departments of continuing medical education; liaison with specialty societies in the achievement of these goals; liaison with the Commission on Mediation and Peer Review and the Ad Hoc Committee on Health Planning for purposes of implementing continuing medical education programs related to responsibilities and activities of these two groups; and the scientific program of the annual meeting. It shall be responsible for accreditation of continuing medical education in hospitals and other institutions or organizations within the state, but shall not be responsible for accreditation of continued medical education within the state's medical schools.

Dianne L. Zwicke, MD, Milwaukee, 1991
C. William Freeby, MD, Appleton, 1991
Kenneth I. Gold, MD, Beloit, 1991, chair
Fred A. Melms Jr, MD, Madison, 1991
Charles E. Fenlon, MD, Appleton, 1991
Thomas L. Zurbriggen, MD, Onalaska, 1991
Bradley G. Garber, MD, Fairchild, 1992
J. David Lewis, MD, West Bend, 1992
Joseph J. Mazza, MD, Marshfield, 1992, vice chair
Kathy P. Belgea, MD, Wausau, 1992
Lori Lynn Neumann, MD, Darlington, 1992
Walter J. Vallejo, MD, La Crosse, 1990
John W. Beasley, MD, Madison, 1990
Charles E. Holmburg, MD, Menomonee Falls, 1990
Edward Zupanc, MD, Monroe, 1990
George Nemec, Jr, MD, Woodruff, 1990
Benson L. Richardson, MD, Green Bay, 1990

Medical School deans' designees:
Thomas C. Meyer, MD, UW-Madison
William Duff, PhD, Medical College of Wisconsin

Subcommittee on Accreditation
Bradley G. Garber, MD, Osseo, chair
William Card, MD, Madison
John A. Palese, MD, Milwaukee
Melvin F. Huth, MD, Baraboo, *emeritus*
Warren J. Holtey, MD, Marshfield
Jerold J. Beerends, MD, West Bend
Eugene Musser, MD, Madison
Arnold Effron, MD, Oconomowoc
Richard D. Sautter, MD, Marshfield
Philip H. Utz, MD, La Crosse
Edward F. Banaszak, MD, Milwaukee
Staff support: Division of Communications

Mediation and Peer Review
This commission shall receive, investigate, and seek to resolve differences between physicians and patients or other complainants, or between physicians, on matters relating to quality of care, and professional ethics. When necessary, it shall initiate disciplinary or other action as appropriate. It shall serve as the Society's advisory body to private or governmental organizations on matters affecting medical peer review including utilization review, appropriateness of care, and quality assurance. It shall advise and consult with component societies on issues of peer review, mediation, ethics, and discipline in concert with members of the Board of Directors. It shall serve as the initial appellate body for peer review and mediation issues that are appealed from local committees of component societies. It shall coordinate the impaired physician program.
Albert H. Adams, MD, Milwaukee, 1991, vice chair
Domenick S. Bruno, MD, Milwaukee, 1991
George A. Pagels, MD, Marshfield, 1991
Charles S. Geiger Jr, MD, West Bend, 1991
Dorothy V. Skye, MD, Rhinelander, 1991
William V. Dovenbarger, MD, Marshfield, 1991
James P. Long, MD, Beloit, 1991
Margaret V. Nelson, MD, Madison, 1991
John W. Faber, MD, Neenah, 1992
James E. Gutenberger, MD, Madison, 1992
David R. LeCloux, MD, Racine, 1992
Joseph R. Wilczynski, MD, Racine, 1992
Robert T. Cooney, MD, Portage, 1992
Frederick W. Blancke, MD, Madison, 1992
Lyle L. Olson, MD, Darlington, 1992
Robert E. Phillips, MD, Marshfield, 1990, chair
William E. Raduege, MD, Woodruff, 1990
Richard C. Zimmerman, MD, Menomonee Falls, 1990

Michael J. O'Neill, MD, Green Bay, 1990
Gay R. Anderson, MD, Neenah, 1990
Philip J. Dougherty, MD, Menomonee Falls, 1990
Santiago L. Yllas, MD, Racine, 1990
Virgil L. Sharp, DO, Waterloo, representing the Wisconsin Association of Osteopathic Physicians and Surgeons
Tim Staacke, Medical Student, UW

Coordinating Council on Physician Impairment
Gerald C. Kempthorne, MD, Spring Green
Roland E. Herrington, MD, Milwaukee
Arthur G. Norris, MD, Milwaukee (SMS)
Ann Neviaser, Madison
Michael P. Mehr, MD, Marshfield
Arlen R. Delp, DO, New Berlin (MEB)

Managing Committee, Statewide Impaired Physician Program
Roland E. Herrington, MD, Wauwatosa
Gerald C. Kempthorne, MD, Spring Green
Fred H Koenecke Jr, MD, Madison
Arthur G. Norris, MD, Wauwatosa
Michael M. Miller, MD, Madison
Wesley E. McNeal, MD, Green Bay

Medicaid Medical Audit Committee
R. Marshall Colburn, MD, Oregon
John A. DeGiovanni, MD, Prairie du Sac
Richard W. Edwards, MD, Richland Center
Charles S. Geiger, Jr, MD, West Bend
John P. Hartwick, MD, Milwaukee
Gerald C. Kempthorne, MD, Spring Green
John J. Kief, MD, Rhinelander
D. Mark Lochner, MD, Waupaca
Virgil L. Sharp, DO, Waterloo
G. John Weir, Jr, MD, Marshfield
Alfred D. Dally, MD, Madison
Staff support: Division of Medical Policy and Practice

Physicians Alliance
This commission shall plan, organize, and implement programs to protect and preserve the legislative, socioeconomic, and political interests of the members of the State Medical Society of Wisconsin. The commission shall analyze state and federal legislation and administrative rules and policies, and recommend to the Board of Directors specific actions and positions designed to carry out this responsibility. The commission shall also inform the membership of the Society regarding proposed legislation and other public policy initiatives, seek the enactment of legislation for the best interests of the public, scientific medicine, and the medical profession, and promote and encourage Society members to be politically active individually and collectively. This commission shall act to protect the socioeconomic interests of the Society membership in public and private health care delivery systems and recommend to the Board of Directors specific strategies and efforts to achieve this purpose. This commission shall consist of members appointed by the Board of Directors in a number deemed sufficient to execute the responsibilities delegated to the commission. Membership on the commission shall also include a representative from each of the specialty sections of the Society, subject to approval by the Board of Directors. These representatives shall be appointed by the sections annually, and shall have the right to vote on all matters before the commission. The president, president elect, immediate past president, and chair of the SMS Board of Directors shall serve as ex officio members of the commission with vote.
John C. Oujiri, MD, Ashland, 1991
Peter J. Parthum, MD, MPH, Muskego, 1991
Michael C. Reineck, MD, West Bend, 1991
C. Peter Erskine, MD, Madison, 1991
Bruce A. Kraus, MD, Columbus, 1991
Charles L. Steidinger, MD, Platteville, 1991
Miguel T. Galang, Jr, MD, Milwaukee, 1991
Christina C. Keppel, MD, Milwaukee, 1991
Michael J. Kryda, MD, Marshfield, 1992
Larry M. Ojeda, MD, Beloit, 1992
Joseph E. Trader, MD, Manitowoc, 1992
Pauline M. Jackson, MD, La Crosse, 1992
Carl S. Eisenberg, MD, Milwaukee, 1992
Michael P. Mehr, MD, Marshfield, 1992
Bernard F. Micke, MD, Madison, 1992
Joseph C. DiRaimondo, MD, Manitowoc, 1990
Vernon Dodson, MD, Madison, 1990
Gerald A. Gehl, MD, Neenah, 1990
Ronald L. Harms, MD, Shawano, 1990
C. Robert Jackson, MD, Madison, 1990
Dennis J. Kontra, MD, Racine, 1990
DeLore Williams, MD, West Allis, 1990
Timothy G. McAvoy, MD, Waukesha, 1990
Namdar Zarvan, medical student, UW

ex officio members
President: William L. Treacy, MD, Milwaukee
President-elect: Roger L. von Heimburg, MD, Green Bay
Immediate Past President: J D Kabler, MD, Madison
Chairman of the Board: Richard H. Ulmer, MD, Marshfield

Section representatives
Anesthesiology: John F. Kreul, MD, Madison
Emergency medicine: C. Peter Erskine, MD, Madison
Family physicians: Jack Strong, MD, Mauston
Internal Medicine: Susan L. Turney, MD, Marshfield
Neurology: Gamber F. Tegtmeyer, Jr, MD, Madison

Neurosurgery: Mohammed Rafiullah, MD, Racine
Ophthalmology: M. Thomas Chemotti, MD, Cedarburg
Otolaryngology: William W. Finch, MD, Madison
Pediatrics: Ordean L. Torstenson, MD, Madison
Physical medicine and rehabilitation: Donna D. Davidoff, MD, Mequon
Preventive medicine: Constantine Panagis, MD, Milwaukee
Radiology: Robert E. Durnin, MD, Madison
Resident physicians: Thomas J. Valente, MD, Milwaukee
(Other section representatives to be appointed.)

Federal Legislation (subcommittee)
Carl S. Eisenberg, MD, Milwaukee
Robert L. Johnson, MD, Wisconsin Rapids
Roland R. Liebenow, MD, Lake Mills
Michael P. Mehr, MD, Marshfield
Carl F. Myers, MD, Racine
Albert Popp, MD, Milwaukee
Robert F. Purtell, Jr, MD, Milwaukee
David R. Weber, MD, Fond du Lac
DeLore Williams, MD, West Allis
Raymond C. Zastrow, MD, Milwaukee
Kenneth M. Viste, Jr, MD, Oshkosh
Staff support: Division of Public Affairs and Division of Medical Policy and Practice

Public Information
This commission shall be concerned about the members of this Society and their image with the public. It shall plan and execute programs of effective public information and health education, assist component societies in the conduct of similar programs, develop effective media relations.
William H. Annesley, Jr, MD, Wauwatosa, 1991
Benjamin C. Wedro, MD, La Crosse, 1991
Jefferson F. Ray, III, MD, Marshfield, 1991
Irwin J. Bruhn, MD, Walworth, 1992, chair
Alan H. Cherkasky, MD, Kaukauna, 1992
Timothy T. Flaherty, MD, Neenah, 1992
Charles N. Kagen, MD, Appleton, 1992
Fred J. Bartizal, Jr, MD, Neenah, 1990
Michael K. Augustson, MD, Beaver Dam, 1990
Arthur G. Barbier, MD, La Crosse, 1990
Paul D. Nelsen, MD, Green Lake, 1990
Jean Lawrence, Fond du Lac, Auxiliary
Staff support: Division of Communications

Wisconsin Medical Journal
The *Wisconsin Medical Journal* shall be the official journal of the Society. An editorial board consisting of the medical editor as chairman and no less than six additional members shall be responsible for all scientific and editorial materials in the *Journal*. A group of no less than five editorial associates, shall be responsible for regularly providing items of editorial opinion for publication in the editorial pages of the *Journal*.
George W. Kindschi, MD, Monroe, 1991
Andrew B. Crummy, Jr, MD, Madison, 1991
Richard D. Sautter, MD, Marshfield, 1990, chair and medical editor
Thomas H. Cogbill, MD, La Crosse, 1990
Fredric L. Hildebrand, MD, Neenah, 1990
Jeffrey H. Lamont, MD, Wausau, 1992
J D Kabler, MD, Madison, 1992
Richard A. Reinhart, MD, Marshfield, 1992
Victor S. Falk, MD, Edgerton, *medical editor emeritus*

Editorial Associates
(Appointed annually by the SMS Board of Directors)
Richard D. Sautter, MD, Marshfield
Russell F. Lewis, MD, Marshfield
Kenneth I. Gold, MD, Beloit
John P. Mullooly, MD, Milwaukee
John D. Wegenke, MD, Madison
Staff support: Division of Communications

Committees

Aging, Extended Care Facilities, and Home Health Care
This committee shall be concerned about the process of aging and means to achieve the best possible health care for the aged, including nursing home care and home care.
Roland R. Liebenow, MD, Lakes Mills, 1991
Edward O. Lukasek, MD, Sparta, 1991
Paul E. Hankwitz, MD, Milwaukee, 1991
Richard S. Kane, MD, Milwaukee, 1991
Donald R. Beaver, DO, Elm Grove, 1991
Gary A. Schmidt, MD, Manitowoc, 1991
Kay E. Jewell, MD, Madison, 1992, chair
Joseph E. Powell, MD, New Richmond, 1992
Ricardo M. Rustia, MD, Kenosha, 1992
William C. Nietert, MD, Wausau, 1992
Robert E. Phillips, MD, Marshfield, 1990
Richard J. Hendricks, MD, Madison, 1990
Edward R. Winga, MD, La Crosse, 1990, vice chair
Thomas H. Williams, MD, Mukwonago, 1990
T. Bayard Frederick, MD, Fond du Lac, 1990
John C. Heffelfinger, MD, Watertown, 1990
Kelli K. Heindel, medical student, UW
Joan Janssen, Mequon, Auxiliary
Staff support: Division of Medical Policy and Practice

Alcoholism and Other Drug Abuse
This committee shall be concerned about prevention,

treatment, and rehabilitation for persons affected by alcoholism and any other type of drug abuse.
John R. Gladieux, MD, Milwaukee, 1991
David L. Nelson, MD, Stoughton, 1991
Charles Goodell, MD, Tomahawk, 1991
David Benzer, DO, Wauwatosa, 1991, chair
Edward O. Lukasek, MD, Sparta, 1991
Edward J. Johnson, MD, Green Bay, 1991
David R. Downs, MD, Dodgeville, 1992
David D. Darcy, MD, Marinette, 1992
Samuel R. McCreadie, MD, Milwaukee, 1992
Thomas H. Peterson, MD, Wausau, 1992
Anne M. G. Schierl, MD, Stevens Point, 1992
Herbert White, DO, Genesee Depot, 1990
Daniel S. Thearle, MD, Neenah, 1990
Harry M. McCormick, MD, Madison, 1990
Ashok R. Bedi, MD, Milwaukee, 1990
Elise Jochinsen, medical student, UW
Sherry Stormo, Fond du Lac, Auxiliary
Staff support: Division of Medical Policy and Practice

Environmental and Occupational Health
This committee shall be concerned with the health and safety of persons in relation to their environment, including matters relating to occupational and rural health.
Vernon N. Dodson, MD, Madison, 1991
Larry A. Lindesmith, MD, La Crosse, 1991, chair
Charles W. Fishburn, MD, New Berlin, 1991
Paul F. Durkee, MD, Janesville, 1991
James T. Paloucek, MD, Milwaukee, 1991
Charles A. Capasso, MD, Neenah, 1991
Samuel Idarraga, MD, Marshfield, 1992
Carl Zenz, MD, West Allis, 1992
William W. Greaves, MD, Milwaukee, 1992
Sridhar V. Vasudevan, MD, Milwaukee, 1992
James L. Basiliere, MD, Oshkosh, 1992
J. Steven Moore, MD, Milwaukee, 1990
Henry A. Anderson, III, MD, Madison, 1990
John J. Beck, MD, Sturgeon Bay, 1990
Erwin S. Huston, MD, Milwaukee, 1990
John T. Schmitz, MD, Milwaukee, 1990
Raymond R. Johnson, MD, Milwaukee, 1990
Albert L. Wiley, Jr, MD, Madison, 1990
Ronelle Moe, medical student, UW
Elizabeth Kuplic, Sheboygan, Auxiliary
Staff support: Division of Medical Policy and Practice

Of the sixteen physicians who received membership in the Fifty Year Club this year, the above group of nine were present at the 1949 Annual Dinner: (left to right) Drs. F. X. Pomainville, Wisconsin Rapids; H. F. Schroeder, Marinette; R. J. Goggins, Oconto Falls; W. H. Bartran, Green Bay; S. E. Gavin, Fond du Lac; W. B. Campbell, Waukesha; C. J. Coffey, Milwaukee; H. M. Guilford, Madison; and J. W. Lockhart, Oshkosh.

The 1949 SMS Fifty Year Club.

Health Care Quality, Costs and Utilization
This committee shall be concerned with promoting an ongoing dialogue with business, industry, and labor. As part of this dialogue special emphasis will be placed on issues relating to the rapidly escalating costs of health care.
Richard H. Christenson, MD, Milwaukee, 1991
Carleton B. Davis, Jr, MD, Monroe, 1991
Norman J. Schroeder, II, MD, Green Bay, 1991
Guenther P. Pohlmann, MD, Milwaukee, 1991
Alfred D. Dally, MD, Madison, 1991
Stephen D. Hathway, MD, Green Bay, 1992
Warren H. Williamson, MD, Racine, 1992
Kermit L. Newcomer, MD, La Crosse, 1992
Jerry M. Ingalls, MD, Monroe, 1992
Russell F. Lewis, MD, Madison, 1990, chair
William C. Miller, MD, Wausau, 1990, vice chair
Raymond R. Johnson, MD, Milwaukee, 1990
Richard A. Ellingstad, MD, Burlington, 1990
Susan Ivanov, medical student, UW
Staff support: Division of Medical Policy and Practice

Maternal and Child Health
This committee shall be concerned about all aspects of health in pregnancy, childbirth and children, with special emphasis on the reduction of maternal mortality and the prevention of disease or disability in children.
Charles Hammond, MD, Neenah, 1991
Perry A. Henderson, MD, Madison, 1991
John D. Kenny, MD, Madison, 1991
James A. Meyer, MD, Marshfield, 1991
Murray L. Katcher, MD, PhD, Madison, 1991
Robert J. Koontz, MD, Reedsburg, 1992
Joanne Selkurt, MD, Whitehall, 1992
Stephen C. Caselton, MD, Marinette, 1992
Jerome H. Gundersen, MD, La Crosse, 1992
Ordean L. Torstenson, MD, Madison, 1992
Gloria M. Halverson, MD, Waukesha, 1990
Daniel F. Johnson, MD, Eau Claire, 1990
Walter R. Schwartz, MD, Wauwatosa, 1990
Robert J. Jaeger, MD, Stevens Point, 1990, chair
Tracy Bachhuber, medical student, UW
Shellie A. Trentlage, medical student, MCW
Roberta Baldwin, Watertown, Auxiliary
Study Committee on Maternal Mortality Survey
Gloria M. Halverson, MD, Waukesha, chair
Perry A. Henderson, MD, Madison
Frederick J. Hofmeister, MD, Wauwatosa
Stanley A. Korducki, MD, Milwaukee
Ronald W. Olson, MD, Madison
Herbert F. Sandmire, MD, Green Bay
Albert H. Stahmer, MD, Wausau
Everett A. Beguin, MD, La Crosse
John E. Inman, MD, Monroe
Robert J. Jaeger, MD, Stevens Point
Bernard Poeschel, MD, Eau Claire
E. Howard Theis, MD, Fond du Lac
Richard C. Brown, MD, Eau Claire, *emeritus*
James A. Meyer, MD, Marshfield
Dorothy Skye, MD, Rhinelander
Dennis Worthington, MD, Milwaukee
Staff support: Division of Medical Policy and Practice

Medical Liability
The purpose of this committee shall be to monitor current liability developments and to examine a series of options and alternatives relative to a long-range solution of the medical liability problems, reporting to the Board of Directors.
J David Lewis, MD, West Bend, 1991
Lucille B. Glicklich, MD, Milwaukee, 1991
Thomas M. Kidder, MD, Milwaukee, 1991
Michael C. Reineck, MD, West Bend, 1991
W. Stuart Sykes, MD, Madison, 1991
S. Marshall Cushman, Jr, MD, Racine, 1991
Luther M. Strayer, III, MD, Neenah, 1991
Charles F. Dungar, MD, Appleton, 1992
C. Robert Jackson, MD, Madison, 1992
Sidney E. Johnson, MD, Marshfield, 1992
Matthew A. Meyer, MD, Pewaukee, 1992
Richard G. Roberts, MD, Madison, 1992, vice chair
Steven L. Lawrence, Milwaukee, 1992
Bruce B. Berry, MD, Milwaukee, 1990
Jerome W. Fons, Jr, Greenfield, 1990
William J. Listwan, MD, West Bend, 1990, chair
James J. Logan, MD, Mauston, 1990
Herbert F. Sandmire, MD, Green Bay, 1990
Paul A. Jacobs, MD, Milwaukee, 1990
Edward Zupanc, MD, Monroe, 1990
Julie Ericson, medical student, UW
Ann Shea, DePere, Auxiliary

Patients Compensation Fund/WHCLIP (subcommittee)
Charles W. Freeby, MD, Appleton
C. Robert Jackson, MD, Madison
Sidney E. Johnson, MD, Marshfield
Thomas M. Kidder, MD, Milwaukee
Walter D. Moritz, MD, Fort Atkinson
Richard G. Roberts, MD, Madison
Paul G. Spottswood, MD, Kenosha
William L. Treacy, MD, Milwaukee
Staff support: Division of Medical Policy and Practice

Medicine, Religion and Ethics
This committee shall be concerned with the bioethical aspects of medical practice, and the development of closer relationships between physicians and clergy to permit discussion of common problems in the total

treatment and care of patients; and, to clarify the relationship between ethics and science in medicine.
Arthur R. Derse, MD, Milwaukee, 1991
Arthur G. Barbier, MD, La Crosse, 1991
James V. Seegers, MD, Elkhorn, 1991
John B. Weeth, MD, La Crosse, 1991, chair
Maureen Murphy-Greenwood, MD, Wisconsin Dells, 1991
Rodney Sorensen, DO, Marshfield, 1991
Scott S. Erickson, MD, Marshfield, 1991
John W. Faber, MD, Neenah, 1992
G. Daniel Miller, MD, Dousman, 1992
Donald P. Davis, MD, Milwaukee, 1992
David J. Matteucci, MD, Kenosha, 1992
David J. Deubler, MD, Kiel, 1992
John C. Jordan, MD, Richland Center, 1990
Gilbert J. Nock, Jr, MD, Milwaukee, 1990
Philip H. Utz, MD, La Crosse, 1990
James E. Glasser, MD, La Crosse, 1990
Erik Schoff, medical student, UW
Lila Seager, Stoddard, Auxiliary
Staff support: Division of Medical Policy and Practice

Membership (ad hoc)
This committee shall function as a sounding board for programs, plans, strategies to address expansion of SMS membership, as well as to evaluate membership campaigns and existing SMS programs. It reports to the Board of Directors.
Timothy T. Flaherty, MD, Neenah, chair
Richard D. Fritz, MD, Milwaukee
Harry J. Zemel, MD, Fond du Lac

Mental Health
This committee shall be concerned with all aspects of mental health as an equal part of the patient's total well being.
William W. Garitano, MD, Marshfield, 1991
Donald L. Feinsilver, MD, Milwaukee, 1991
Wess R. Vogt, MD, Milwaukee, 1991
Kevin J. Fullin, MD, Kenosha, 1991
Pauline M. Jackson, La Crosse, 1991
Margaret J. Seay, MD, Oshkosh, 1992
Barry Blackwell, MD, Milwaukee, 1992
Peter L. Eichman, MD, Madison, 1992
Rudolf W. Link, MD, Madison, 1992, vice chair
Laurens D. Young, MD, Milwaukee, 1992
Christina C. Keppel, MD, Milwaukee, 1990
Krystyna D. Rytel, MD, Wauwatosa, 1990
Robert B. Shapiro, MD, Madison, 1990
Clarence E. Moore, MD, Fond du Lac, 1990, chair
Larry Park, medical student, UW
Katie Webster, La Crosse, Auxiliary
Staff support: Division of Medical Policy and Practice

Safe Transportation
This committee shall be concerned with the health and safety of all who may be affected by the use of vehicles of transportation on land, water, or in the air.
Stephen W. Hargarten, MD, Milwaukee, 1991
Susan Kinast-Porter, MD, Monroe, 1991
John C. Heffelfinger, MD, Nekoosa, 1992
Edward J. Johnson, MD, Green Bay, 1992
Richard D. Lindgren, MD, Madison, 1992
Thomas J. Luetzow, MD, Larsen, 1992
Ralph F. Hudson, MD, Eau Claire, 1990
Kathryn P. Nichol, MD, Madison, 1990
James L. Weygandt, MD, Kohler, 1990, chair
Audrey Peterson, Madison, Auxiliary
Staff support: Division of Medical Policy and Practice

School Health
This committee shall be concerned with maintaining and improving the health of those attending the public or private schools of this state, including matters related to athletics.
Conrad L. Andringa, MD, Madison, 1991, chair
Charles H. Miller, III, MD, La Crosse, 1991
Louis J. Ptacek, MD, Marshfield, 1991
James S. Janowiak, MD, Merrill, 1991
Roy E. Buck, MD, Oshkosh, 1992
Natalie L. Gehringer, MD, Menasha, 1992
Patricio F. Viernes, MD, Brookfield, 1992
Victoria A. Vollrath, MD, Madison, 1992
Carol A. Blum, MD, Ashland, 1990
Rolf L. Simonson, MD, Sheboygan, 1990
Jeffrey H. Lamont, MD, Wausau, 1990
Kent Roberson, medical student, UW
Mary Smigielski, Milwaukee, Auxiliary
Sherry Stormo, Fond du Lac, Auxiliary

WIAA Medical Advisory Committee
Conrad L. Andringa, MD, Madison, chair
James H. DeWeerd, Jr, MD, Stevens Point
Frederick W. Gissal, MD, Wisconsin Dells
Ronald L. Harms, MD, Shawano
Kermit L. Newcomer, MD, La Crosse
Elizabeth A. Steffen, MD, Racine
Phillips T. Bland, MD, Westby
Rolf S. Lulloff, MD, Green Bay
Staff support: Division of Communications

WNA-SMS Liaison
This committee shall be concerned with developing recommendations, as appropriate, regarding education, legislation, practice arrangements and delivery

patterns; shall facilitate understanding and acceptance by the professions and the public of changing medical and nursing relationships, roles and practices; shall serve as a consultation resource in matters that relate to joint practice.

SMS members
Carl S. Eisenberg, MD, Milwaukee, 1991
Marc F. Hansen, MD, Madison, 1992
Robert T. Cooney, MD, Portage, 1992
Albert J. Motzel, Jr, MD, Waukesha, 1990 co-chair
Daniel E. Britton, MD, Madison, 1990
Ruth Stellpflug, medical student, UW

WNA members
Judy Ellington, RN, Baraboo, co-chair
Norma Lang, RN, PhD, Milwaukee
Leona VandeVusse, RN, Milwaukee
Sherry Quamme, RN, Columbus
Susan Bulgrin, RN, Portage

Task forces

Task Force on AIDS
In 1987, the Board of Directors established this task force to advise members of the State Medical Society on the formulation of public policy to address the scientific, medical, ethical, legal, and legislative issues pertaining to AIDS.
SMS members
Cyril M. Hetsko, MD, Madison, chair
Edwin L. Overholt, MD, La Crosse
J. Douglas Lee, MD, Marshfield
Constantine Panagis, MD, Milwaukee
Gerald Dorff, MD, Milwaukee
Raymond Bachhuber, MD, Green Bay
Ian Gilson, MD, Milwaukee
Richard Reich, MD, Madison
Kay Jewell, MD, Madison
Patricia Barwig, MD, Milwaukee
Charles Junkerman, MD, Milwaukee
Michael W. Rytel, MD, Milwaukee
Thomas L. Schlenker, MD, Milwaukee
Stanley Inhorn, MD, Madison
Walter Baranowski, MD, Madison
Diana L. Kruse, MD, Prairie du Sac
Darold A. Treffert, MD, Fond du Lac
Barry Blackwell, MD, Milwaukee
Nick R. Trane, medical student, Madison
Louise Scott, Madison, Auxiliary

WHA members
Harold Brown, Prairie du Chien Memorial Hospital
Diane Ebersberger, WHA, Madison

Special advisory members
Jeffrey P. Davis, MD, Madison
James Vergeront, MD, Madison
Jerome H. Gundersen, MD, La Crosse
Staff support: Division of Medical Policy and Practice

Blue Ribbon Task Force on Alternatives to the Tort System
In 1987, the Board of Directors established the Blue Ribbon Task Force on Alternatives to the Tort System to evaluate possible alternative dispute resolution systems to replace the current medical liability tort system. Systems to be considered include fault-based administrative systems, no-fault compensation systems, and arbitration and contractual arrangement systems. Pending review of the task force's findings by the SMS Board and House of Delegates, a model alternative may be presented to the Wisconsin legislature for possible enactment.
Roger L. von Heimburg, MD, Green Bay, chair
John P. Mullooly, MD, Milwaukee
C. Robert Jackson, MD, Madison
William J. Listwan, MD, West Bend
Richard G. Roberts, MD, Madison
John Simenstad, MD, Osceola
William L. Treacy, MD, Milwaukee
Darold A. Treffert, MD, Fond du Lac
Thomas L. Adams, Madison
Gordon Baldwin, Madison
Steve Dickmann, Stoughton
John Duncan, Milwaukee
Commissioner Robert Haase, Madison
John Parr, Milwaukee
Rep Peggy Rosenzweig, Wauwatosa
Staff support: Division of Medical Policy and Practice

Physician Review and Discipline
The purpose of this task force shall be to evaluate and make recommendations for the improvement of physician review and discipline in the State of Wisconsin.
Peter L. Eichman, MD, Madison, chair
Rudolf W. Link, MD, Madison, vice chair
C. William Freeby, MD, Appleton
Richard D. Fritz, MD, Milwaukee
Lucille B. Glicklich, MD, Milwaukee
Cyril M. Hetsko, MD, Madison
John J. Kief, MD, Rhinelander
Timothy T. Flaherty, MD, Neenah
Russell F. Lewis, MD, Madison
Gerald C. Kempthorne, MD, Spring Green
Robert E. Johnston, MD, Green Bay
Charles S. Geiger, Jr, MD, West Bend
D. Mark Lochner, MD, Waupaca

William L. Baker, MD, Monroe
Adolf L. Gundersen, MD, La Crosse
Philip H. Utz, MD, La Crosse
Barry Blackwell, MD, Milwaukee
J D Kabler, MD, Madison
Susan F. Behrens, MD, Beloit
Otto Cox, Appleton
Staff support: Division of Medical Policy and Practice

Senior SMS management

Secretary and general manager: Thomas L. Adams
Assistant secretary: James E. Paxton
Executive assistant: Margaret J. Wiersum
Director, Administrative Services: LeRoy A. Johnson
Director, Division of Communications: Deborah B. Wilke
Director, Division of Public Affairs: Theresa M. Hottenroth
Director, Division of Medical Policy and Practice: Mark L. Adams

The swaddled infant pictured at right is one of the famous works in terra cotta exquisitely modeled by the fifteenth century Italian sculptor, Andrea della Robbia. In that day infants were bandaged from birth to preserve the symmetry of their bodies, but still the gibbous spine and distorted limbs of severe rickets often made their appearance.

A bambino from the Foundling Hospital, Florence, Italy.—A. della Robbia

Glisson, writing in 1671, described an ingenious use of swaddling bands — "first crossing the Brest and coming under the Armpits, then about the Head and under the Chin and then receiving the hands by two handles, so that it is a pleasure to see the Child hanging pendulous in the Air . . . This kind of Excercise . . . helpeth to restore the crooked Bones. . . ."

STRAPPED FOR RICKETS

A Mead Johnson and Company ad from the 1938 Wisconsin Medical Journal.

MILLIONS OF AMERICANS ARE SUFFERING FROM A SERIOUS HEALTH PROBLEM.

DENIAL.

How long will you tell yourself that you're simply big boned? Or that you're just retaining water? Or that your clothes must have shrunk? The truth is, you're carrying too much weight. Weight that could endanger your very life, since obesity can incease your risk of heart attack. All of which makes this a good time to begin a program of healthy diet and exercise. After all, it's easier to treat a case of denial now than to treat a heart attack later.

American Heart Association

WE'RE FIGHTING FOR YOUR LIFE

This space provided as a public service.

Expense reimbursement policy

It is SMS policy to offer reimbursement of out-of-pocket expenses incurred by its officers, directors, committee chairs and members, AMA delegates and alternates and other designated physicians when such expenses are incurred in the course of the conduct of business on behalf of the Society. The Society recognizes that any such leadership role requires a substantial contribution in personal time on the part of the physician. Traditionally, this has been accepted as a contribution to the procession and the health of the public. Out-of-pocket expenses in the discharge of official functions of the Society are, however, reimbursable as set forth below, except that district directors are not reimbursed for the expense of attending the annual meeting of the Society (Bylaws, Chapter V, Sec. 4).

Officers, directors, committee chairs and members, and other designated persons

Reimbursable expenses include the cost of:

- All meals, including normal tips, incurred while away from the physician's home city on SMS business.
- All meals in the home city of the physician when these are in relation to an SMS business meeting.
- Entertainment expenses where such expense is clearly a proper and necessary adjunct to the conduct of the physician's business function for the Society.
- Valet and laundry services when the physician is away from his or her home city on SMS business continuously for four days or more.
- Lodging for those days (nights) reasonably associated with the dates of a meeting for which expenses are claimed.
- Transportation from the home city to meeting site and return as follows:

Air. Cost of round trip coach airfare, plus necessary ground transportation.

Bus or train. Cost of round trip fare, plus necessary ground transportation.

Auto. Mileage at the current Society rate (now $.22) to and from the meeting site, plus necessary parking fees and highway tolls.

Miscellaneous ground transportation. Local bus and cab fares as necessary.

Auto rental. All or some portion of such cost may be reimbursed as a substitute for other ground transport when this is the most feasible alternative following initial air, bus or train travel.

- Telephone and telegraph communications relative to SMS business.
- Secretarial and copying services, postage and stationary used for SMS business. (NOTE: SMS Headquarters is prepared to handle most official correspondence and reproduction work for officers and committee members. However, physicians may be reimbursed for personal or office costs relating to

Political sentiment from the 1949 Wisconsin Medical Journal.

secretarial services, copying, postage and stationery used in conducting SMS business. Copies of all official correspondence should be sent to the appropriate committee staff person at SMS, so as to assure proper coordination and recordkeeping.

- Expenses as described above incurred by a physician's spouse when accompanying the physician in an official capacity or when the spouse is expected to be in attendance are reimbursable.

Procedure for claiming expenses. To obtain reimbursement, submit a statement of expenses incurred. Attach copies of bills or receipts for all lodging, travel, and meals over $25. Itemize costs for secretarial services as described above separately. Mail to SMS, Accounting Dept, PO Box 1109, Madison, WI 53701. Reimbursement will be made within two weeks following receipt and approval of the expense report.

AMA delegates and alternates

AMA delegates and alternates (including the Young Physicians Section delegate and alternate) from Wisconsin receive reimbursement as follows for each meeting to the AMA House of Delegates they attend:

- Round trip economy air fare (advance booking strongly suggested.)
- Actual cost of room (mid-range) for five nights at the annual meeting, and four nights at the interim meeting.
- $60 per day for food and all incidentals for six days at the annual meeting, and five days at the interim meeting.
- When AMA delegates and alternates are conducting SMS business not in conjunction with meetings of the AMA House of Delegates, their expenses may be reimbursed in the same manner as outlined for officers and directors.

Out-of-state trips

With the exception of travel to the AMA House of Delegates meetings and meetings and travel of the SMS president and president elect, all out-of-state trips must have prior approval by the Executive Committee to be reimbursable. Contact the secretary and general manager.

Summary of SMS policies

Each year, the SMS takes positions on hundreds of issues. In an effort to identify major topics on which the Society has established formal policy, either through its House of Delegates or its Board of Directors, the following list is provided. More detailed information and complete explanations of SMS policies are available on any of these topics by contacting the Division of Medical Policy and Practice. The month and year in which the policy was adopted follows the topic entry in parentheses.

Aging
- Physician extenders (8/87)

AIDS (1/88, 4/88)
- Education
- Provision of care
- Funding
- Testing
- Confidentiality
- Public health measures
- HIV antibody testing and disclosure (10/87, 8/87)

Alcoholism (8/87)
Athletic training education (4/88)
Auxiliary
- Illegal drugs (4/88)

Birth and developmental outcome monitoring program (10/87)
Collective negotiations (8/87)
Confidentiality of medical information (4/88)
Continuing medical education (1/88)
Contract negotiations (4/88)
Corporal punishment in schools (6/87)
Critical care categorization (4/88)
Dental hygienists supervision (6/87)
Diabetes equipment tax exemption (6/87)
Diabetes mandated insurance coverage (6/87)
Disabled parking privileges (4/88)
Drinking age of 21 years (8/87)
Drug testing laboratory standards (6/87)
Drug testing in the workplace (1/88)
Duty to warn: principals (1/88)
Emergency care education (4/88)
Fetal monitor tracings and destruction of medical records (6/87)
Hazardous air emissions (4/88)
Health insurance risk-sharing plan revisions (6/87)
Health Policy Agenda for the American People (1/88)
Hospice licensure (10/87)
Hospital Rate Setting Commission (6/87)
Immunization funding (4/88)
Injury epidemiology (4/88)

IPA financial reporting (1/88)
Living will modifications (6/87)
Mandated insurance coverage (4/88)
Mediation and peer review (6/87)
Medicaid
• Co-payments
• Coverage for gastric bypass surgery (6/87)
• Coverage for psychiatric and AODA services (4/88)
• Coverage for physical therapy (4/88)
Medical liability
• Documentation charges (4/88)
• Frivolous suits (4/88)
• Limits on non-economic damages (4/88)
• Mandated liability coverage (4/88)
• Medical liability education (4/88)
• Patients Compensation Panels (1/88)
• Physician support groups (4/88)
• Risk management and loss prevention (6/87, 4/88)
• Tail coverage (4/88)
Medical sales tax (8/87)
Medicare
• MAAC (4/88)
• Second Opinion Program (10/87, 8/87)
• Reimbursement inequities (4/88)
• Rural hospital DRG inequities (10/87)
Maternal and child health
• Baby Doe (8/87)
MEDPACT—safe transportation (8/87)
Motorcycle helmets (6/87)
Non-smokers: premium discounts in the state life insurance plan 6/87)
Nursing (4/88)
Occupational therapists licensure (6/87)
Optometric therapeutic drugs (4/88)
PartnerCare (4/88)
Pharmacy scope of practice (6/87)
Physician-patient relationship (4/88)
Pop-top cans (8/87)
Pregnancy counseling services and restrictions (8/87)
Respiratory care practitioner regulations (8/87)
Rural health (1/88)
• Physician manpower
• Payment differentials
• Health care delivery as a rural development strategy
• Rural physician survey
Sales tax expansion proposal (8/87)
School-linked health clinics (6/87)
Seat belts in school buses (6/87)
Service corporation directors (6/87)
Smoke-free environment (4/88)
Specialty determination (4/88)
Speed limit: 65 mph (6/87)
Tax exemption for health cooperative (6/87)
Uninsured and health insurance (6/87)

Join the Beaumont 500

The Fort Crawford Medical Museum at Prairie du Chien—a national historic landmark—is in need of continuing financial support to assure its preservation and to aid its restoration and expansion as a medical and public heath museum. Originally restored with WPA funds in the mid-1930s, the museum is in need of major repairs and renovations as well as completion of a medical hall of fame, special display featuring medical memorabilia from Wisconsin medical families, and the expansion of audio-visual presented in the Dessloch Theater and Stovall Hall of Health.

Physician and other support is solicited to establish the Medical Museum Endowment Fund, a permanent fund of at least $500,000, the income from which is earmarked for the operation and maintenance of the museum. Contributions of any amount are encouraged.

The first 500 physicians or others who contribute $1,000 or more to the museum endowment fund will join a select group known as *The Beaumont 500*. Beaumont 500 contributors will receive a specially designed Beaumont Medallion and an invitation to an annual medical history dinner. Those who contribute $10,000 or more will receive a first edition copy of Dr William Beaumont's famous book: *Experiments and Observations on the Gastric Juice and the Physiology of Digestion*, published in 1833.

All gifts are tax-deductible to the extent allowed by law. For further information contact the CES Foundation, PO Box 1109, Madison, WI 53701.

Board of Directors and districts: 1989–1990

Officers

President (1989–1990)
William L. Treacy, MD
2222 N Mayfair Rd
Milwaukee 53226

President-elect (1989–1990)
Roger L. von Heimburg, MD
900 S Webster Ave
Green Bay 54301

Secretary and General Manager (1989–1990)
Thomas L. Adams
330 E Lakeside St, PO Box 1109
Madison 53701

Treasurer (1989–1990)
John J. Foley, MD
PO Box 427
Menomonee Falls 53051

Board of Directors

Chair: Richard H. Ulmer, MD
Vice chair: Raymond C. Zastrow, MD

Directors

District 1
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2000 W Kilbourn, Milwaukee 53233

Thomas A. Hofbauer, MD (1987–1990)
N76 W14704 Northpoint Dr, Menomonee Falls 53051

Marcia J. S. Richards, MD (1988–1990)
2900 W Oklahoma Ave, PO Box 2901, Milwaukee 53201

Frank H. Urban, MD (1987–1990)
10425 W North Ave, Milwaukee 53226

Wayne H. Konetzki, MD (1987–1990)
403 N Grand Ave, Waukesha 53186

William J. Listwan, MD (1987–1990)
279 S 17th Ave, West Bend 53095

Huron L. Ericson, MD (1987–1990)
2405 Northwestern Ave, Racine 53404

Richard H. Strassburger, MD (1988–1991)
161 W Wisconsin Ave, Milwaukee 53203

George R. Schneider, MD (1989–1991)
9330 W Lincoln Ave, West Allis 53227

Thomas A. Reminga, MD (1989–1992)
2025 E Newport Ave, Milwaukee 53211

Raymond C. Zastrow, MD (1989–1992)
2400 W Villard Ave, Milwaukee 53209

Robert F. Purtell, Jr, MD (1989–1992)
3316 W Wisconsin Ave, Milwaukee 53208

District 2
Peter L. Eichman, MD (1987–1990)
600 Highland Ave, Madison 53792

Kenneth I. Gold, MD (1988–1991)
1905 Huebbe Parkway, Beloit 53511

Sandra L. Osborn, MD (1988–1991)
1912 Atwood Ave, Madison 53704

James J. Tydrich, MD (1988–1991)
1313 W Seminary St, Richland Center 53581

William L. Kopp, MD (1989–1991)
6 Yellowstone Ct, Madison 53705

John D. Wegenke, MD (1989–1992)
345 W Washington Ave, Madison 53703

District 3
Jack M. Lockhart, MD, (1989–1992)
1836 South Ave, La Crosse 54601

District 4
Robert J. Jaeger, MD (1988–1991)
3291 Thompson Ct, Stevens Point 54481

William E. Raduege, MD (1989–1992)
PO Box 553, Woodruff 54568

Richard H. Ulmer, MD (1989–1992)
1000 N Oak Ave, Marshfield 54449

District 5
Donn D. Fuhrmann, MD (1988–1990)
1420 Algoma St, New London 54961

Harry J. Zemel, MD (1988–1991)
430 E Division St, Fond du Lac 54935

James L. Basiliere, MD (1989–1992)
414 Doctors Ct, Oshkosh 54901

District 6
Joseph C. DiRaimondo, MD (1988–1991)
1636 Mirian Rd, Manitowoc 54220

John E. Kraus, MD (1989–1992)
1510 Main St, Marinette 54143

Stephen D. Hathway, MD (1989–1992)
PO Box 1700, Green Bay 54305-5000

District 7
Philip J. Happe, MD (1988–1991)
733 E Clairemont Ave, Eau Claire 54701

Marwood E. Wegner, MD (1989–1992)
208 Adams St S, St Croix Falls 54024

District 8
Robert L. Sellers, MD (1987–1990)
N 28th St and Hill Ave, Superior 54880

President: William L. Treacy, MD (1989–1990)
2222 N Mayfair Rd, Milwaukee 53226
President elect: Roger L. von Heimburg, MD (1989–1990)
900 S Webster Ave, Green Bay 54301

Immediate past president: J D Kabler, MD (1989–1990)
1552 University Ave, Madison 53705
Speaker: Richard G. Roberts, MD (1989–1991)
777 S Mills St, Madison 53715
Vice speaker: Cyril M. Hetsko, MD (1988–1990)
1313 Fish Hatchery Rd, Madison 53715

Ex officio, without vote:
Secretary Adams, Treasurer Foley, and Jonathan H. Berkoff, medical student at UW–Madison

Delegates to the AMA
DeLore Williams, MD (1988–1989 and 1990)
8501 W Lincoln Ave, West Allis 53227

Patricia J. Stuff, MD (1988–1989 and 1990)
PO Box 366, Bonduel 54107

John K. Scott, MD (1988–1989 and 1990)
20 S Park St, #350, Madison 53715

Richard W. Edwards, MD (1989–1990 and 1991)
1313 W Seminary St, Richland Center 53581

John D. Riesch, MD (1989–1990 and 1991)
W180 N7950 Town Hall Rd, Menomonee Falls 53051

Timothy T. Flaherty, MD (1989–1990 and 1991)
547 E Wisconsin Ave, Neenah 54956

Alternates to the AMA
Cyril M. Hetsko, MD (1988–1989 and 1990)
1313 Fish Hatchery Rd, Madison 53715

John P. Mullooly, MD (1988–1989 and 1990)
8430 W Capitol Dr, Milwaukee 53222

Jerome W. Fons, Jr, MD (1989–1989 and 1990)
3734 W Coldspring Rd, Greenfield 53221

J D Kabler, MD (1989–1990 and 1991)
1552 University Ave, Madison 53705

Kenneth M. Viste, Jr, MD (1989–1990 and 1991)
100 Stoney Beach Rd, Oshkosh 54901

Richard H. Ulmer, MD (1989–1990 and 1991)
1000 N Oak Ave, Marshfield 54449

Young Physicians Section to the AMA
Delegate—Kay E. Jewell, MD (1988–1989)
301 Troy Dr, Madison 53704
Alternate delegate—James J. Wallace, DO (1989–1990)
405 First St, Oconto 54153

Financial report

The following financial statements of the State Medical Society of Wisconsin are part of the treasurer's report to the House of Delegates. The annual certified audit, prepared by Grant Thornton, independent certified public accountants, is on file at Society headquarters. Members wishing to review the audit may do so upon inquiry to the secretary-general manager.

State Medical Society of Wisconsin general fund balance sheet
Dec 31, 1988

Assets

Current assets	
Cash and cash equivalents	$1,898,611
Investments	683,025
Accounts receivable	
Trade	$51,912
Due from affiliates	$141,871
Investment revenues receivable	$10,226
Inventories	$10,203
Prepaid expenses	$71,909
Total current assets	$2,867,757
Property and equipment—at cost	
Building and equipment	$1,031,753
Furniture and equipment	$498,942
Less accumulated depreciation	–$936,988
Construction in progress	$572,201
Land	$52,875
	$1,218,783
Other assets	
Rental property, net of accumulated depreciation of $36,438	$135,148
Prepaid pension costs	$359,258
Long-term investment	$249,000
Cash value of life insurance	$6,844
Investment in subsidiary	$287,514
Deferred compensation plan assets	$39,965
	$1,077,729
Total assets	$5,164,269

Liabilities

Current liabilities	
Current maturities of long-term debt	$4,200
Trade accounts payable	$70,742
Construction account payable	$193,063
Due to affiliates	$27,150
Dues payable to other organizations	$602,364
Income taxes payable	$14,000
Accrued payroll and vacation pay	$90,037
Accrued property, payroll and sales taxes	$75,583
Accrued health insurance costs	$20,000
Deferred revenues	$1,112,125
Other	$1,700
Total current liabilities	$2,210,964
Long-term debt less current maturities	$248,912
Deferred compensation payable	$39,965
Membership equity	$2,664,428
Total liabilities and membership equity	$5,164,269

Statement of income and expense
Year ended Dec 31, 1988

Income	
Membership dues	$2,378,817
Interest and dividends	$147,477
Seminars	$104,193
Gain on sale of investments	$7,813
Loss on disposal of property and equipment	–$68,513
Rental	$191,516
Advertising	$75,435
Pension benefit	$110,972
AIDS regional education and training center grant	$54,912
Other	$133,789
	$3,136,411
Expenses	
Payroll and employee benefits	$1,457,680
Travel and conference	$377,610
General and administrative	$588,619
Occupancy	$359,679
Professional fees and outside services	$175,446
AIDS regional education and training center grant	$54,912
	$3,013,946
Excess of revenues over expenses before income tax	$122,465
Income taxes (credits)	$2,471
Excess of revenues over expenses	$124,936
Equity at Jan 1, 1988	$2,418,724
Equity in earnings of subsidiary	$120,768
Equity at Dec 31, 1988	$2,664,428

ARMY RESERVE OFFERS NEW FINANCIAL INCENTIVES FOR RESIDENTS IN ANESTHESIOLOGY AND SURGICAL SPECIALTIES

If you are a resident in Anesthesiology, Orthopaedic Surgery, or General Surgery including Neurosurgery, Colon/Rectal, Cardiac/Thoracic, Pediatric, Peripheral/Vascular and Plastic Surgery, the Army Reserve has a new and exciting opportunity for you. The New Specialized Training Assistance Program will provide you with financial incentives while you're training in one of these specialties.

Here's how the program can work for you. If you qualify, you may be selected to participate in the Specialized Training Assistance Program. You'll serve in a local Army Reserve medical unit with flexible scheduling so it won't interfere with your residency training, and in addition to your regular monthly Reserve pay, you'll receive a stipend of **$678** a month.

You'll also have the opportunity to practice your specialty for two weeks a year at one of the Army's prestigious Medical Centers.

Find out more about the Army Reserve's new Specialized Training Assistance Program. Call (collect) your U.S. Army Medical Department Reserve Personnel Counselor:
Major Paul A. Deneson, Jr.,
312-433-0365.

ARMY MEDICINE. BE ALL YOU CAN BE.

Membership facts

Whether you are just starting medical school, engaged in post-graduate training, maintaining a full-time practice, or retired, the Society has a membership classification to fit your needs. Election to membership by the county medical society in which your principal place of practice is located carries with it membership in the SMS and, if you wish, the AMA. If you qualify for resident membership at the time of your election, your membership dues are greatly reduced. You may also qualify for reduced dues during the first two years of your practice. In addition, two-physician families may be eligible for a $50 discount on total SMS membership dues. Regular membership dues in 1990 are $525 for the SMS and $400 for the AMA; county society dues vary.

Dues for regular, part-time practice, or over-age-70 membership classifications may be paid in one lump sum or in two equal installments, with the first half due by Oct 1, 1989, and the second half by Jan 1, 1990.

Lt Gov Scott McCallum spoke to the House of Delegates about tort reform.

An incentive plan is available for early payment of county and state dues: 5% off state dues for those who pay state and county dues in full by Oct 1, 3% for dues received by Nov 1, and 1% for dues received by Dec 1.

A more detailed list of SMS membership classifications and their corresponding dues follow.

SMS membership classifications

Regular: Member in active practice. Regular members who are in their first or second year out of residency, fellowship, or military obligation may qualify for reduced dues for the SMS, the AMA, or both.

Part-time practice: Physician regardless of age who practices 1,000 hours or less during the calendar year but does not qualify for retired membership.

Resident: Member who as of Jan 1 of the dues year is in an approved training program as a hospital resident or research fellow and is licensed to practice medicine and surgery in Wisconsin.

Military service: Member who is serving in the US armed forces or US Public Health Service (generally not to exceed five years).

Associate: Member whose dues are waived because of financial hardship due to illness or disability. This classification is temporary and is reviewed on an annual basis.

Retired: Member who has completely retired from practice (works less than 240 hours each year). All dues are waived unless county society indicates it wishes to charge county dues. (Retired and life members who wish to receive *Medigram* and the *Wisconsin Medical Journal* must pay a $40 publications fee.)

Life: Member who has held membership in a state medical society for 50 years. Past presidents of the SMS are also included in this category.

Honorary: Physician named an honorary member by the Board of Directors for outstanding contributions to the medical profession.

Over age 70: Member in active practice who is over 70 years of age.

Scientific fellow: Person engaged in teaching or research in the basic sciences at an accredited college or university—but not holding a degree in medicine or osteopathy—by invitation and consent of the Board of Directors.

Emeritus: Retired member who has chosen not to renew his or her license.

Candidate: Member attending a medical school in Wisconsin or fulfilling a postgraduate obligation prior to eligibility for licensure.

1990 Dues

	SMS	AMA	County
Regular	$525	$400	Normal county dues
First year in practice	$262	$200	Normal county dues
Second year in practice	$393	$300	Normal county dues
Two physician family	$475	$400	Normal county dues
Part-time practice	$262	$400	Normal county dues
Part-time, over age 70	$262	$200*	Normal county dues
Resident	$ 60	$ 45	Varies
Military service	-0-	$264/$45	-0-
Associate	-0-	-0-	-0-
Retired	-0-	$400/$80/-0-*	-0-
Retired, over age 70	-0-	-0-	-0-
Life	-0-	$400/-0-*	-0-
Honorary	-0-	$400/-0-*	-0-
Over age 70	$262	$400/-0-*	Normal county dues
Candidate:			
Student	$ 20[1]	$ 20[2]	-0-
Postgraduate, one	$ 10.00	$ 45.00	Varies
Scientific Fellow	-0-	-0-	-0-
Emeritus	-0-	-0-	-0-

[1]Students' SMS and county dues for four academic years
[2]Students' AMA dues for the calendar year 1988

*Physicians in these categories may be eligible for exemption from AMA dues under the grandfather clause. (AMA dues-exempt members who were granted exemption before 1986 based on previously established criteria, with the exception of financial hardship or disability, will automatically be exempt from dues in 1986 and the years following.)

Current AMA policy provides for only two categories of exemptions: financial hardship or disability and 70 years of age or older and fully retired. AMA dues for under-age-70 and fully retired members may be reduced to $80.

State Society dues are prorated on a monthly basis for those elected to membership July 1 through Sept 30. Those elected after Sept 30 are exempt from dues for the balance of the year in which they are elected. AMA dues follow the same pattern except that prorating is on a semiannual, rather than monthly, basis.

To begin the membership process, contact your county medical society or call the Communications Division of the SMS at 1-800-362-9080 or 608-257-6781.

Marlene Cummings, secretary of the Department of Regulation and Licensing, (center) visits with Roger L. von Heimburg, MD, (left) and Marcia J.S. Richards, MD, (right) at the annual meeting.

Officers of the SMS specialty sections

As of June 1, 1989

Key: chair (C), chair elect (CE), vice chair (VC), secretary-treasurer (ST), delegate (D), alternate delegate (AD), AMA delegate (AMA D), AMA alternate delegate (AMA AD). Expiration of term appears in parentheses.

Allergy and Clinical Immunology
(November 1989)

C—Marshall E. Cusic, MD
345 W Washington Ave
PO Box 222
Madison 53701-0222
608-252-8510

ST—

D—Marshall E. Cusic, MD

AD—Robert J. Kriz, MD
1 S Park St
Madison 53715

Anesthesiology
(September 1989)

C—John F. Kreul, MD
B6/387 CSC
600 Highland Ave
Madison 53792
608-263-8100

ST—W. Stuart Sykes, MD
1005 Columbia Rd
Madison 53705

D—Warren J. Holtey, MD
1000 North Oak Ave
Marshfield 54449

AD—John H. Barsch, MD
146 Nautilus Dr
Madison 53705
608-238-4353

Cardiology
C—

ST—

D—D. Joe Freeman, MD
425 Pine Ridge Blvd, #204
Wausau 54401
715-845-6242

AD—Robert M. Green, MD
1836 South Ave
La Crosse 54601
608-782-7300

Dermatology
(October 1989)

C—Donald J. Miech, MD
1000 North Oak Ave
Marshfield 54449
715-387-5311

ST—David K. Falk, MD
1313 Fish Hatchery Rd
Madison 53715

D—Joel E. Taxman, MD
1622 W Wisconsin Ave
Milwaukee 53233
414-933-2552

AD—Nyles R. Eskritt, MD
3508 E Maria Dr
Stevens Point 54481

Emergency Medicine
(April 1989)

C—Mark J. Mirick, MD
333 Pine Ridge Blvd
Wausau 54401
715-847-2160

ST—John J. Maher, MD
1969 W Hart Rd
Beloit 53511
608-364-5682

AD—John J. Maher, MD

Family Physicians
(June 1989)

C—Curtis W. Bush, MD
130 Warren St
Beaver Dam 53916
414-887-1753

ST—Arne T. Lagus, MD
PO Box 739
St Croix Falls 54024-0739
715-483-3221

D—Robert S. Viel, MD
18735 Pleasant St
Brookfield 53005
414-786-6520

AD—Thomas H. Peterson, MD
995 Campus Dr
Wausau 54401
715-675-3391

Hospital Medical Staff
C—

ST—

D—Stephen R. Peters, MD
PO Box 549
Woodruff 54568-0549

AD—Louis R. Pfeiffer, MD
515 Prospect Ave
Nekoosa 54457

Internal Medicine
(September 1989)

C—Susan L. Turney, MD
1000 N Oak Ave
Marshfield 54449
715-387-5435

ST—William J. Listwan, MD
279 S 17th Ave
West Bend 53095
414-338-1123

D—Susan L. Turney, MD
1000 N Oak Ave
Marshfield 54449
715-387-5435

AD—Norman A. Desbiens, MD
1000 N Oak Ave
Marshfield 54449
715-387-5471

Medical Faculties
C—

ST—

D—Mark J. Ciccantelli, MD
1908 Forest St
Wauwatosa 53213

AD—Manucher J. Javid, MD
H4/346 CSC
600 Highland Ave
Madison 53792
608-263-1410

Medical Students
C—

C-MCW—Katherine M. Hegmann
9417 W Bluemound
Milwaukee 53226

C-UW—David Dries
6226 N Highlands Ave
Madison 53705

D—Jonathan H. Berkoff
401 Palomino Lane, Apt 2N
Madison 53705
608-271-1258

AD—Rita F. Huspen
3055 N Humboldt Blvd
Milwaukee 53212-2225
414-545-6096

AMA-D—Katherine M. Hegmann

AMA-AD—Rita F. Huspen

Neurology
(September 1989)

C—Michael F. Finkel, MD
PO Box 1510
Eau Claire 54702-1510
715-839-5203

ST—

D—R. Clarke Danforth, MD
3070 N 51st St, #100
Milwaukee 53210
414-447-6030

AD—Gamber F. Tegtmeyer, Jr, MD
20 S Park St, #202
Madison 53715
608-255-4826

Neurosurgery
(October 1988)

C—

ST—

D—Glenn A. Meyer, MD
16475 Shoreline Dr
Brookfield 53005
414-257-6465

AD—S. Marshall Cushman, Jr, MD
3831 Lighthouse Dr
Racine 53402
414-637-6106

Obstetrics-Gynecology
(July 1990)

C—William E. Martens, MD
10425 W North Ave, Suite 226
Wauwatosa 53226

ST—Robert J. Jaeger, MD
3291 Thompson Ct
Stevens Point 54481
715-344-4120

D—Charles A. Hammond, MD
411 Lincoln St
Neenah 54956
414-727-4304

AD—Michael A. Schellpfeffer, MD
1400 75th St
Kenosha 53140
414-658-2133

Ophthalmology
(September 1989)

C—Dennis J. Kontra, MD
5802 Washington Ave
Racine 53406
414-886-9100

VC—Peter J. McCanna, MD
1025 Regent St
Madison 53715
608-258-4520

ST—Jack L. Hughes, MD
2500 N Mayfair Rd, Suite 200
Wauwatosa 53226
414-259-1930

D—M. Thomas Chemotti, MD
PO Box 503
Cedarburg 53012-0503
414-377-8118

AD—Gregory P. Kwasny, MD
2300 N Mayfair Rd, Suite 1030
Wauwatosa 53226

Orthopaedics
(May 1990)

C—Michael C. Reineck, MD
1201 Oak St
West Bend 53095
414-338-6641

ST—William P. McDevitt, MD
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Milwaukee 53226

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Milwaukee 53220
414-771-5080

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414-933-8158

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(March 1990)

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414-543-3100

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608-263-7064

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La Crosse 54601
608-782-7300

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414-375-1577

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(November 1989)

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Milwaukee 53211

ST—Gerald A. Hanson, MD
Dept of Pathology
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Milwaukee 53226

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Whitehall 54773

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414-352-3100

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Wauwatosa 53226
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Milwaukee 53211
414-963-1700

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414-494-1600

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AMA D—

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Beaver Dam 53916
414-887-1753

PE—Richard G. Roberts, MD
777 S Mills St
Madison 53715
608-263-3598

S—Arne T. Lagus, MD
208 S Adams St
PO Box 739
St Croix Falls 54024-0739
715-483-3221

ES—Robert H. Herzog
850 Elm Grove Road
Elm Grove 53122
414-784-3656

Wisconsin Society of Internal Medicine
P—Susan L. Turney, MD
1000 N Oak Ave
Marshfield 54449
715-387-5435

PE—William J. Listwan, MD
279 S 17th Ave
West Bend 53095
414-338-1123

S—Robert E. Phillips, MD
1000 N Oak Ave
Marshfield 54449
715-387-5852

ES—Sandy Koehler
611 East Wells St
Milwaukee 53202
414-276-6445

Wisconsin Neurological Society
P—Robert W. Graebner, MD
1313 Fish Hatchery Rd
Madison 53715
608-252-8152

PE—Benjamin Brooks, MD
600 Highland Ave
Madison 53792
608-263-5442

VP—Robert T. Schmidt, Jr, MD
720 S Van Buren
Green Bay 54301
414-436-7100

S—Arthur J. Turner, MD
2040 W Wisconsin Ave, #662
Milwaukee 53233
414-344-9494

Wisconsin Neurosurgical Society
P—Patrick R. Walsh, MD
18170 Midland Pl
Brookfield 53005
414-257-5508

PE—Donald B. Kelman, MD
1000 N Oak Ave
Marshfield 54449
715-387-5297

VP—Lincoln F. Ramirez, MD
H4/334 CSC
600 Highland Ave
Madison 53792
608-256-1901

S—Robert A. Narotzky, MD
PO Box 1510
Eau Claire 54702-1510
715-839-5270

Wisconsin Section: American College of Obstetrics and Gynecology
C—William J. O'Leary, MD
815 S Tenth St
La Crosse 54601
608-782-9760

D—Charles A. Hammond, MD
411 Lincoln St
Neenah 54956
414-727-4304

Wisconsin Society of Obstetrics and Gynecology
P—William E. Martens, MD
10425 W North Ave, #226
Wauwatosa 53226

PE—Paul G. Harkins, MD
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Marshfield 54449
715-387-5206

S—Robert J. Jaeger, MD
3291 Thompson Ct
Stevens Point 54481
715-344-4120

Wisconsin Academy of Ophthalmology
P—Dennis J. Kontra, MD
5802 Washington Ave
Racine 53406
414-886-9100

PE—Peter J. Mc Canna, MD
1025 Regent St
Madison 53715
608-258-4520

S—Jack L. Hughes, MD
2500 N Mayfair Rd, #200
Wauwatosa 53226
414-259-1930

ES—Robert H. Herzog
850 Elm Grove Road, #11
Elm Grove 53122
414-784-3747

Wisconsin Orthopaedic Society
P—Michael C. Reineck, MD
1201 Oak St
West Bend 53095
414-338-6641

S—William P. McDevitt, MD
2323 N Mayfair Rd, #310
Milwaukee 53226
414-771-5080

Wisconsin Society of Otolaryngology-Head and Neck Surgery
P—Donald S. Blatnik, MD
2400 S 90th St
West Allis 53227
414-543-3100

S—Terrence W. Frank, MD
Dept of Otolaryngology
600 Highland Ave
Madison 53792
608-263-7064

Wisconsin Society of Pathologists
P—David J Rothwell, MD
2025 E Newport
Milwaukee 53211

VP—Richard A. Komorowski, MD
Dept of Pathology
8700 W Wisconsin Ave
Milwaukee 53226
414-257-6201

S—Gerald A. Hanson, MD
Dept of Pathology
8700 W Wisconsin Ave
Milwaukee 53226

T—Ronald R. Martins, MD
1855 Hollyhock Lane
Elm Grove 53122
414-554-2285

Wisconsin Chapter: American Academy of Pediatrics
P—Ordean L. Torstenson, MD
1313 Fish Hatchery Rd
Madison 53715
608-252-8181

PE—Kathryn P. Nichol, MD
2753 Marshall Pkwy
Madison 53713

S—Joanne A. Selkurt, MD
1933 Park St
Whitehall 54773

A—Beth A. Johnson
7500 N Range Line Rd
Milwaukee 53209

Wisconsin Chapter: American College of Cardiologists
WI Governor—Robert M. Green, MD
1836 South Ave
La Crosse 54601
608-782-7300

Wisconsin Chapter: American College of Physicians
P—Paul Carbone, MD
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600 Highland Ave
Madison 53792
608-263-8610

VP—Joseph J. Mazza. MD
1000 N Oak Ave
Marshfield 54449

S—Kenneth I. Gold, MD
1905 Huebee Pkwy
Beloit 53511

T—Richard Friedman, MD
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Madison 53792

Wisconsin Society of Physical Medicine and Rehabilitation
P—Donna D. Davidoff, MD
N10132 W23 Gettysburg
Mequon 53092-5456
414-225-8133

PE—Sridhar V Vasudevan, MD
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Milwaukee 53210
414-447-2089

S—Keith B. Sperling, MD
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608-263-8649

Wisconsin Chapter: American College of Physicians
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Marshfield 54449

S—Kenneth I. Gold, MD
1905 Huebbe Parkway
Beloit 53511
608-364-2240

T—Richard B. Friedman, MD
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Madison 53792

Wisconsin Society of Plastic Surgeons
P—Ruedi P. Gingrass, MD
9800 W Bluemound Road
Milwaukee 53226
414-476-7240

VP—Harvey M. Bock, MD
2315 North Lake Dr, #807
Milwaukee 53211
414-271-8283

S—Paul W. Loewenstein, MD
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Wauwatosa 53226
414-259-9000

Wisconsin Society for Preventive Medicine
P—Henry A. Anderson III, MD
1 W Wilson St
PO Box 309
Madison 53701-0309
608-266-1253

S—Constantine Panagis, MD
9609 W Hadley St
Milwaukee 53222
414-453-9067

Wisconsin Psychiatric Association
P—Donald P. Hay, MD
7040 N Green Bay Ave
Glendale 53209
414-351-2688

PE—William T. McKinney, MD
600 Highland Ave
Madison 53792
608-263-6127

S—Laurens Young, MD
8700 W Wisconsin Ave, #175
Milwaukee 53226

T—Kenneth I. Robbins, MD
1313 Fish Hatchery Rd
Madison 53715
608-252-8226

Wisconsin Society of Radiation Oncologists
P—Homer H. Russ, MD
611 St Joseph Ave
Marshfield 54449
715-387-7637

VP—Sally M. Schlise, MD
1124 Cass St
Green Bay 54301
414-433-8184

S—Richard A. Steeves, MD
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600 Highland Ave
Madison 53792
608-263-8500

T—J. Frank Wilson, MD
Dept of Radiation Therapy
8700 W Wisconsin Ave
Milwaukee 53226

Wisconsin Radiological Society
P—Eric B. Wilson, MD
4397 Country Club Rd
Oshkosh 54901
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414-257-6110

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715-483-3221

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Green Bay 54303
414-494-1600

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600 Highland Ave
Madison 53792
608-263-5215

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608-782-7300

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414-437-0431

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Waukesha 53188
414-542-0444

S—Ronald D. Wenger, MD
1912 Atwood Ave
Madison 53704
608-241-4611

Wisconsin Urological Society
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2600 N Mayfair Rd, #545
Milwaukee 53226
414-476-0430

S—Clyde C. Lawnicki, MD
1836 South Ave
La Crosse 54601

WISPAC and Physicians for Better Government

The Wisconsin Physicians Political Action Committee (WISPAC) is a voluntary, nonprofit organization open to physicians and their spouses. Restricted from making political contributions, the SMS created WISPAC to provide the medical profession an opportunity to become more politically active and effective. WISPAC is governed by a board of directors, traditionally concentrates on state legislative races, and cooperates with the AMA Political Action Committee (AMPAC) on federal issues.

Physicians for Better Government is a political conduit, established in 1987, by the WISPAC board of directors. Political conduits differ from political action committees in that the members retain the right to decide who receives their individual contributions. Physicians for Better Government contributions are deposited in a special account in each member's name. No contribution is made to a candidate without the member's authorization.

WISPAC and Physicians for Better Government are administered by the SMS Division of Public Affairs. For additional information call 608-257-6781 or 1-800-362-9080.

Contributions may be sent to: WISPAC–Physicians for Better Government, PO Box 2595, Madison, WI 53701.

Suggested membership categories include:

- $200 *Sustaining*
  ($100 Physicians for Better Government, $50 WISPAC, $50 AMPAC, unless otherwise specified)
- $100 *Regular*
  ($50 Physicians for Better Government, $30 WISPAC, $20 AMPAC, unless otherwise specified)
- $40 WISPAC and AMPAC only
- $20 WISPAC only

SMS resource directory

A

Accounting	Jim Esselman/Marcella Herfel
Accounts payable	
SMS Services, Inc	Kris Hensen
SMS/*WMJ*	Rick Koffarnus
Accounts receivable	
SMS Services, Inc	Marcella Herfel/Kris Hensen
SMS/*WMJ*	Marcella Herfel/Kris Hensen
Membership dues	County societies/ Jim Lundberg/Joyce Pease
Insurance premiums	Jan McChesney
Accreditation for CME	Kristin Kreuger
Address changes	Joyce Pease
Administrative rules (state)	Michael Kirby/ Don Lord/Salley Wencel
Administrative Services Division	Lee Johnson
Aesculapian Society	Jean Steele
Aging and extended care facilities	LaVerne Bartel
AIDS	Sara Schwartz
Alcoholism and other drug abuse	Trish Ramsay
Allied health personnel	Sally Wencel
Alternative delivery systems	Mary Barham
AMA—delegates, policies and activities	Tom Adams/ Jim Paxton
Annual meeting	Kristin Krueger
Association Management Services	Lanny Hardy
Audits (T-18, T-19, WIPRO)	Trish Ramsay
Audio-visual services	Deborah Wilke
Auxiliary	LaVerne Bartel

B

Beaumont 500	Jean Steele
Board of Directors	Tom Adams
Bylaws: state and county medical	Sally Wencel/ Jim Paxton

C

Capitol Update	Don Lord/Terry Hottenroth
CHAMPUS	Trish Ramsay
Charitable, Educational and Scientific Foundation	Jean Steele
Child abuse	LaVerne Bartel
Claim forms (HCFA 1500)	Bill Guerten
Communications Division	Deborah Wilke/Russell King
Community health programs	LaVerne Bartel
Complaints about medical care	Sally Wencel
Complaints about medical care—Dane County	Lanny Hardy
Computers	Bill Wendle/Doug Turcek
Consent forms	Sally Wencel
Continuing medical education	Kristin Krueger
Contract analysis	Sally Wencel
County medical society affairs including Constitution and Bylaws	Sally Wencel/Michael Kirby

D

Data collection	Mary Barham
Data systems	Doug Turcek
Discipline of physicians	Sally Wencel
Donations (monetary, real property, living wills, in-kind)	Jean Steele
DRGs	Trish Ramsay

E

Economic information	Mary Barham
Editorial Board	Deborah Wilke/Russell King
Emergency medical services	Sally Wencel
Environmental health	Don Lord
Ethics	Sally Wencel/Mary Barham

F

Fees for medical care or other physician services	Sally Wencel
Fort Crawford Medical Museum	Jean Steele
Foundation (CESF)	Jean Steele/Jim Paxton

G

General management of SMS	Tom Adams/Jim Paxton
Governmental affairs	Terry Hottenroth/ Michael Kirby/Don Lord
Grants for special projects	Jean Steele
Great America tickets	Barbara Kopenski

H

HSS-124 Hospital Code	Sally Wencel
Health care costs	Mary Barham
Health care data	Mary Barham
Health care for the uninsured	Cecilia Geis
Health careers	Deborah Wilke
Health education	Deborah Wilke
Health insurance third-party carriers	Trish Ramsay
Health manpower	Trish Ramsay
Hospital bylaws	Sally Wencel
Hospital medical staff section	Deborah Wilke
Hospital-physician relations and due process	Sally Wencel
Hospitals and health facilities	Sally Wencel
House of Delegates	Tom Adams/Jim Paxton

I

Impaired physicians — Sally Wencel
Insurance and membership programs
- Insurance — Jan McChesney/Barbara Kalupa
- Annuities — Life
- Auto — Office protection Plan
- Dental — Overhead expense
- Disability — Personal property
- Funding of claims-made tail coverage — Personal umbrella
- Professional liability
- Health — Retirement plans

Membership programs — Noreen Kreuger/Lee Johnson
- Auto leasing plan — Credit cards
- Avis or Hertz rental plan — Typewriter discount
- Collection service — Worker's compensation

Interns and residents — Deborah Wilke

J

Joint Commission on Accreditation of Health Organizations (JCAHO) — Sally Wencel

L

Legal information — Sally Wencel
Legislation and regulations
- state — Terry Hottenroth/Michael Kirby/Don Lord/field consultants
- federal — Michael Kirby/Terry Hottenroth

Liability insurance coverage — Barbara Kalupa/Charlie Sitkiewitz
Liability insurance regulation — Mark Adams/Terry Hottenroth
Library — Marjorie Stafford/Kathryn Derene
Licensure of physicians and others — Sally Wencel
Living wills — Sally Wencel/Don Lord
Long-term care — LaVerne Bartel

M

Mailing labels — Jim Lundberg/Joyce Pease
Marketing in medical care — Deborah Wilke
Maternal and child health — LaVerne Bartel
Maternal mortality study — Trish Ramsay
Media relations — Deborah Wilke/Russell King
Mediation panels — Mark Adams
Mediation and peer review — Sally Wencel
Medicaid (T-19) — Trish Ramsay
Medicaid audits — Trish Ramsay
Medical assistants — LaVerne Bartel
Medical history — Jean Steele
Medicolegal issues — Mark Adams/Sally Wencel
Medical liability — Mark Adams/Mary Barham
Medical liability (legislative information and related matters) — Terry Hottenroth/Mark Adams
Medical museum, Prairie du Chien — Bill Wendle/Jean Steele
Medical Policy and Practice Division — Mark Adams/Mary Barham
Medical records — Sally Wencel
Medical student loans
- applications — Jean Steele
- repayments — Norma Swenson/Noreen Krueger

Medicare (T-18) — Trish Ramsay
Medicare audits — Trish Ramsay
Medicine, religion and ethics — LaVerne Bartel
Medigram — Deborah Wilke/Russell King/Kathryn Derene
Membership — county societies/Jim Lundberg/Joyce Pease
Membership Committee — Deborah Wilke
Membership recruitment and retention — Jim Lundberg/Deborah Wilke
Mental health — Cecilia Geis
Minority health issues — Mary Barham

N

Negotiations — Tom Adams
Newspapers/news releases — Deborah Wilke/Russell King
Nursing — Sally Wencel
Nursing homes — LaVerne Bartel/Terry Hottenroth

O

Occupational health — Don Lord
Occupational Health Guides — Jean Steele

P

Pamphlets on health care — Deborah Wilke
PartnerCare — Trish Ramsay
Patients Compensation Fund — Mark Adams
Peer review — Sally Wencel
Personnel — Barbara Kopenski/Stefanie Beam
Physicians for Better Government — Terry Hottenroth/field consultants
Physician information
- biographical — Jim Lundberg/Joyce Pease

Physician placement service — Marjorie Stafford
Physician recognition award — Kristin Krueger
Physician referrals
- Dane County — Tami Karls
- other counties — Jim Lundberg/Joyce Pease

Political action — Terry Hottenroth/field consultants
Practice management — Lee Johnson
Practice management seminars — Karen Garrett
Printing — Bill Guerten
Profesional liability (legislative information and related matters) — Terry Hottenroth/Mark Adams
Profesional liability insurance — Charlie Sitkiewitz/Barbara Kalupa
Property management—SMS — Bill Wendle/Lee Johnson
PRO — Trish Ramsay
Public Affairs Division — Terry Hottenroth/Michael Kirby
Public health — Mary Barham/Terry Hottenroth

Public information	Deborah Wilke/Russell King
Public relations	Deborah Wilke

R

Radio	Deborah Wilke/Russell King
Resident physicians	Deborah Wilke
Risk management	Cecilia Geis
Rural health	Trish Ramsay

S

Safe Transportation	Trish Ramsay
Savant syndrome information	Jean Steele
School health	Deborah Wilke
Scientific affairs	Kristin Krueger
Second opinions	Trish Ramsay
Speakers	
scientific	Bill Wendle
other	Deborah Wilke
Specialty society services	Lanny Hardy
Student loans and scholarships	
applications	Jean Steele
repayments	Norma Swenson/Noreen Krueger
SMS Services, Inc	
accounts receivable	Marcella Herfel/Kris Hensen
accounts payable	Kris Hensen
Association Management Services	Lanny Hardy/ Jackie Millar/Kathy Mohelnitzky
claim forms	Bill Guerten
printing	Bill Guerten
endorsed programs	Noreen Krueger/Lee Johnson
general	Lee Johnson
insurance plans	Jan McChesney
premiums	Jan McChesney

T

Tax problems	Sally Wencel
Television	Deborah Wilke/Russell King
Title 18 (Medicare)	Trish Ramsay
Title 19 (Medicaid)	Trish Ramsay
Tourette Syndrome Physician Guides	Jean Steele

U

Utilization review	Mary Barham

W

Wisconsin Health Care Liability Insurance Plan (WHCLIP)	Mark Adams
Wisconsin Ambulatory Medical Care Survey	Mary Barham
Wisconsin Association of Senior Physicians (WASP)	Jean Steele
Wisconsin Medical Journal	Russell King
Wisconsin Workshop on Health	LaVerne Bartel
Wisconsin Peer Review Organization (WIPRO)	Trish Ramsay
WIPRO audits	Trish Ramsay
WISPAC	Terry Hottenroth/field consultants
Women's health issues	Mary Barham
Workers compensation	Lee Johnson

Y

Young Physicians Section	Deborah Wilke

SMS Public Affairs Division

Field consultants

District 1
Lois Riley: 414-271-4328
- Kenosha
- Milwaukee
- Ozaukee
- Racine
- Walworth
- Washington
- Waukesha

District 2
Paul A. Markowski: 608-257-6781
- Calumet
- Columbia-Marquette-Adams
- Dane
- Dodge
- Fond du Lac
- Grant
- Green
- Green Lake-Waushara
- Iowa
- Jefferson
- Lafayette
- Richland
- Rock
- Sauk
- Waupaca
- Winnebago

District 3
Larry J. Martin: 608-257-6781
- Brown
- Clark
- Door-Kewaunee
- Forest
- Langlade
- Lincoln
- Manitowoc
- Marathon
- Marinette-Florence
- Oconto
- Oneida-Vilas
- Outagamie
- Portage
- Price-Taylor
- Shawano
- Sheboygan
- Wood

District 4
J. Michael Eaton: 608-257-6781
Ashland-Bayfield-Iron
Barron-Washburn-Burnett
Chippewa
Crawford
Douglas
Eau Claire-Dunn-Pepin
Juneau
La Crosse
Monroe
Pierce-St Croix
Polk
Rusk
Sawyer
Trempealeau-Jackson-Buffalo
Vernon

County Society Services

Dane County Medical Society
Madison office — Lanny Hardy
608-283-5410
Medical Society of Milwaukee County
Milwaukee office — 414-271-4328
Mediation and membership — Julie Lesser
Physicians Alliance — Lois Riley

SMS Services, Inc

Insurance services
Home office, Madison
608-257-6781

District managers
Charlie Sitkiewitz
Madison, 608-257-6781

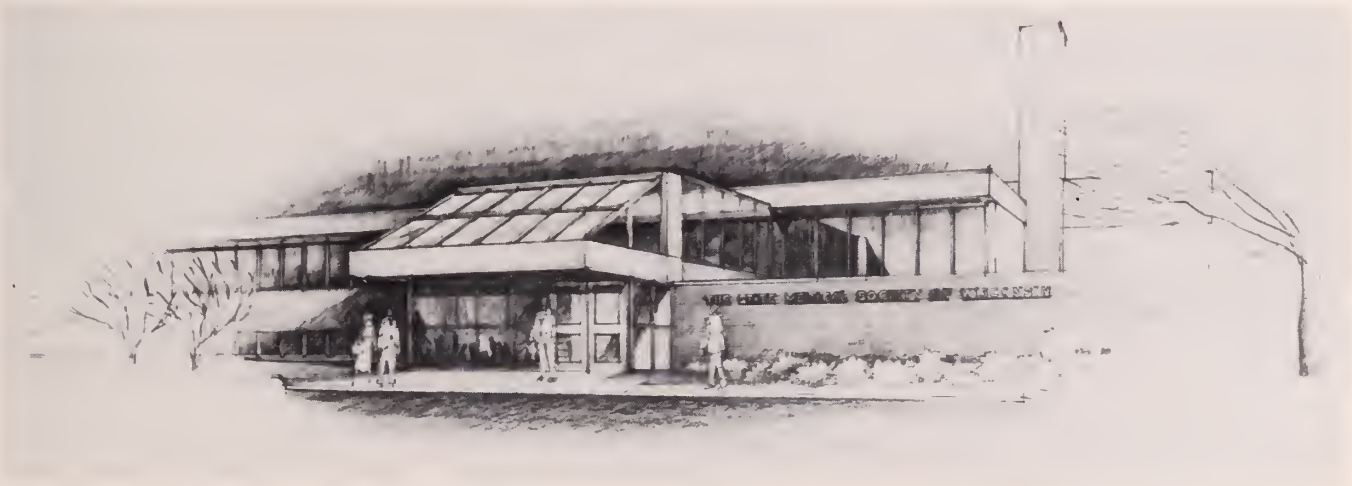
Don Mulock
Milwaukee, 414-747-0919

Association Management Services

Lanny Hardy
Madison, 608-283-5410
Services to other organizations
Jackie Millar/Kathy Mohelnitsky/Tami Karls
608-283-5410; or toll free, 1-800-362-9080
Dane County Medical Society
Dane County Sports Medicine Council
Wisconsin Academy of Physician Assistants
Wisconsin Association of Medical Directors
Wisconsin Chapter—American College of Cardiology
Wisconsin Chapter—American College of Surgeons
Wisconsin Council of Child and Adolescent Psychiatry
Wisconsin Dietetic Association
Wisconsin Medical Group Management Association
Wisconsin Medical Records Association
Wisconsin Neurological Society
Wisconsin Neurosurgical Society
Wisconsin Psychiatric Association
Wisconsin Society of Oral and Maxillofacial Surgery
Wisconsin Software Publishers Association

SMS-affiliated organizations

608-257-6781; or toll free, 1-800-362-9080
Auxiliary of SMS — LaVerne Bartel
CES Foundation — Jean Steele
SMS Services, Inc — Lee Johnson
Wisconsin Physicians Political Action Committee (WISPAC) — Terry Hottenroth



The newly remodeled SMS headquarters in Madison.

Physician support group

The SMS's Medical Liability Committee in 1987 created the Physicians' Support Program to help physicians and their families cope with the stress of being sued for malpractice. The program provides emotional support, practical information, and an opportunity for the physician and spouse to share their feelings with sympathetic listeners.

How the program works

When a physician is sued for medical malpractice, the SMS sends him or her a packet of materials that includes a letter explaining the Physicians' Support Program, practical advice on coping with the experience, and a list of physicians and spouses who have volunteered to serve as members of a special support group. A similar packet is sent to the physician's spouse about a week later. The program was recently expanded, and this year a second packet that contains material offering practical tips on preparing for litigation and a description of the workings of the Medical Mediation Panels and a resource bibliography is also mailed to these physicians.

The Physicians' Support Group

The purpose of the support group is to offer emotional support and practical advice for dealing with a medical malpractice suit. The emphasis is on personal contact and communication between the physician or spouse requesting help and the panel member. The setting of meetings is left entirely to the parties involved and may be limited to telephone calls, if so desired. Topics covered during meetings are expected to be wide ranging, eg, feelings of hostility, fear, loss of confidence, difficulty in making decisions, and withdrawal from the family, but discussions of the specific merits of the case are avoided. The emphasis is on individual interaction and open and frank discussions. There are no group sessions. Confidentiality is assured in all cases.

Any practicing physician who has been a respondent in a malpractice action and feels he or she can offer emotional support to a colleague in a similar situation is encouraged to volunteer as a support group member. Spouses who can provide support for their counterparts are also invited to participate. Each panelist receives basic information about the program and advice on how to be an effective participant.

Physicians interested in participating in the Physicians' Support Group should contact Cecilia Geis in the Division of Medical Policy and Practice at the SMS.

Sample letter

Letter to a physician named in a medical malpractice case. Items mentioned in this letter as "enclosed" are available from the Division of Medical Policy and Practice at SMS.

Dear Doctor:

According to our records, you have been named in a medical malpractice case. Feelings such as anger, frustration and depression are common for physicians involved in a malpractice action. I am writing this letter to inform you that there are other physicians and spouses who have been through similar experiences and are willing to discuss those feelings.

As part of the work of the Medical Liability Committee, we have looked at the effect of the medical malpractice action on the physician and his or her family. It was the recommendation of the Medical Liability Committee to the Board of Directors that the State Medical Society establish a support structure for physicians and their families involved in medical malpractice actions. Part of our proposal recommended the establishment of a group of physicians and spouses who could serve as "sympathetic listeners" for the physicians and their families involved in a liability action.

I invite you and your spouse or significant other to use the program. Enclosed is a list of physicians and spouses who have volunteered to serve. Please feel free to contact any physician or spouse on the list. He or she will assure you of maintaining confidentiality.

Also, enclosed is a brief description of the program and helpful materials to cope with the stress associated with medical litigation. Specific information concerning the Wisconsin Medical Mediation Panels and the litigation process will be sent to you within the next two weeks. Remember, talking to an experienced, knowledgeable peer about your frustrations is important. If you have further questions about the program or would like additional information, please feel free to contact Cecilia Geis at SMS, 1-800-362-9080.

Sincerely,

William J. Listwan, MD
Chair, Medical Liability Committee

Mediation and peer review services

When misunderstandings arise about what the physician hopes to accomplish and what the patient expects it is important that the patient discuss with the physician any questions about the medical care received. If they are not resolved, however, the SMS provides a means for resolving these differences.

The SMS Commission on Mediation and Peer Review receives, investigates, and resolves complaints and inquiries from patients and others, concerning Wisconsin physicians. The commission's standard of judgment is what constitutes good medical care. Physicians, too, may benefit from commission efforts to mediate differences between themselves.

Many complaints and questions received by SMS staff are resolved by telephone. By protocol, however, only written complaints will be considered by the commission. If all affected parties reside within the boundaries of a single county medical society, that society may assume jurisdiction of the complaint. If it does, the complaint will be transferred to the county medical society for investigation and resolution.

A protocol manual was developed by the Commission on Mediation and Peer Review and approved by the Board of Directors for conducting resolution of patient complaints, employing peer review mechanisms to test physician practice patterns, and responding to inquiries or requests for action regarding impaired physicians. The manual was designed to accommodate the informal disposition of minor and uncomplicated complaints, as well as complex and serious matters which may involve due process, patient or physician appeals, proposed disciplinary actions, and Board of Directors' consideration of a physician's SMS membership. The manual is available, upon request.

Certain complaints received by the commission are evaluated by subcommittees, members of which submit reports and recommended resolutions to the commission chair. Frequently, these subcommittee conclusions are transmitted to the subject physicians, and as appropriate, to complainants. All subcommittee activities are reported to the commission. Matters of a more serious nature require additional use of the manual, as necessary.

The Commission on Mediation and Peer Review offers peer review services to private and governmental organizations and to physicians, including utilization review, appropriateness of patient care, and quality assurance. Although it is empowered to initiate disciplinary action, the commission's most valuable peer review benefits have been educational, judging from physicians' expressed appreciation for the commission's consultation in matters of proper patient care.

The commission maintains purview over the Statewide Impaired Physician Program and continues its interest in the Coordinating Council on Physician Impairment of the SMS and the Medical Examining Board. The commission participates in the Medicaid Medical Audit Committee, under contract between the SMS and the Wisconsin Department of Health and Social Services.

Commission members will also review cases submitted by physicians who are the subject of Medicare or Medicaid reviews to provide an independent assessment of the appropriateness of care provided. In those instances where the commission disagrees with a WIPRO or other review organization finding, the commission will provide the physician with an independent medical opinion in any further action taken by the review agencies.

The WIPRO review process

Many physicians in Wisconsin have experienced a Wisconsin Peer Review Organization (WIPRO) audit. To assist physicians in the event they are reviewed, the SMS developed *A Guide to Medicare Audits: The WIPRO Review Process*. This article is a brief summary of the *Guide*, which may be ordered by contacting the SMS Division of Medical Policy and Practice.

WIPRO reviews are primarily concerned with care provided to Medicare patients while hospitalized. WIPRO performs two types of utilization reviews: pre-admission reviews, reviews performed prior to admitting the patient, and retrospective reviews, reviews of the services provided performed after discharge of the patient.

WIPRO also performs quality or integrity reviews. These are conducted during a retrospective review. A generic quality screen is used to identify possible quality of care prob-

lems. If a case fails to pass a screen, it is sent to a WIPRO physician advisor, who relies on his or her own medical judgment of the case. These screens are mandated by the Health Care Financing Administration (HCFA).

WIPRO also has the ability to apply sanctions. Sanctions may be in the form of a monetary fine or exclusion from the Medicare program. Sanctions result from the violation of an obligation placed on physicians to assure that services provided are:

- economical and only done when and to the extent they are medically necessary,
- of a quality that meets professionally recognized standards of health care, and
- supported by the appropriate evidence of medical necessity and quality in the form and fashion that the reviewing PRO may reasonably require.

If you are audited, or you disagree with a review decision, the following steps should be taken:

- Contact the Division of Medical Policy and Practice at 1-800-362-9080 for assistance in understanding the process and your rights and responsibilities.
- Review the material originally submitted to WIPRO. Submit any additional information that the agency requests or that you believe may aid in the review.
- Discuss the case with the WIPRO Physician Advisor. This physician's name is included in the initial letter of pending denial, and he or she makes the initial decision on whether to deny payment or pursue a violation.
- It may be helpful to get an impartial review by the SMS Commission on Mediation and Peer Review. In cases where the commission agrees with the physician, it will support and assist the physician in his or her interactions with WIPRO.

The *Guide* describes the WIPRO review process, the procedures used, and the situations that trigger review. This information is valuable to physicians in avoiding unnecessary involvement with WIPRO and help in dealing effectively in those instances where WIPRO involvement is unavoidable.

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Impaired physician program

The Statewide Impaired Physician Program functions under the purview of the Commission on Mediation and Peer Review, although its activities are managed by a six-member managing committee. The program protocol guides the general handling of inquiries or concerns regarding identified impaired physicians. Available to Wisconsin licensed physicians, the program offers education, identification, assessment, and compassionate intervention. The program refers patients to acceptable facilities for evaluation or treatment, and monitors a two-year follow-up after completion of initial therapy.

Through the program, a number of physicians have been encouraged by compassionate colleagues to enter structured rehabilitation. Most of the literature on the subject contends that from 10% to 14% of practicing physicians have difficulty with alcohol or drugs. Some research suggests that, during a lifetime, one in ten physicians will abuse alcohol in professional circumstances so as to be identified as impaired.

Unfortunately, many people in a position to observe and identify impaired physicians do not know what to do when they perceive a problem, nor do they realize that help is available from organized programs. Furthermore, individuals such as medical staff members, hospital administrators, and others are reluctant to report a physician to an organized program. Their initial reaction is to not get involved, or to conclude that the problem can be handled by someone else in some other manner. This attitude often results in delayed intervention and treatment or in ineffective action that ultimately fails. Still others, who might otherwise report an impaired physician may seek legal advice, only to be told by their lawyers to be noncommittal, and to respond only to a subpoena. Such

The SMS program maintains formal ties with the Wisconsin Medical Examining Board (MEB) through the Coordinating Council on Physician Impairment. The council consists of three physicians representing the SMS and three members of the MEB. The council establishes guidelines for the program and coordinates activities so that appropriate information is shared. Council action can be taken in the event a physician fails to respond to treatment or refuses to enter rehabilitation. The council may refer a physician to the MEB when the health of the public may be jeopardized. The council represents a balance of concerns and interests between the voluntary assistance program of organized medicine and the state's statutory licensing and disciplinary body. Thus, the council is an appropriate step in the reporting process during attempts at physician rehabilitation where difficulty may be encountered.

Any responsible person concerned that a physician may suffer from an impairment may write to the Society or call 608-257-6781 (in Madison), or 1-800-362-9080 (in Wisconsin). Confidentiality is assured. Staff assigned to receive information will consult with the Managing Committee chair for guidance and early action.

advice could be a deterrent to early intervention.

Current techniques of identification, intervention, assessment, treatment, and follow-up of impaired physicians are not well known in the medical community. Physicians are not generally adequately trained or skilled in identification, diagnosis, and treatment of patients with chemical dependency. As a result, few are able to respond adequately when they accept an impaired physician as a patient.

Through efforts of the Managing Committee, the SMS Board of Directors approved the concept of contracting with a part-time medical director to provide continuous program leadership and activity. At the 1988 annual meeting, the SMS House of Delegates adopted the Board's recommendation and approved a $15 dues increase for 1989 to fund the position.

Phase I: Education and prevention
Target individuals and groups are educated to understand chemical dependency among physicians. They learn symptoms of impairment; techniques of early identification and prevention; and resources available for identification, assessment, intervention, and treatment; and social, financial, legal, and other problems associated with impairment.

Primary target groups.

- Physicians: Meetings of hospital medical staffs, county medical societies, regional or statewide continuing medical education, and accredited seminars, (eg, at the SMS annual meeting).
- Hospital personnel: Hospital administrators and medical directors, chiefs of medical staffs, hospital boards of trustees, directors of nursing and pharmacy, and others (eg, anesthetists and technicians). Consultation for medical staff officers on establishing effective impaired physician committees or programs in hospitals.
- Pharmacists, nurses, and nursing home administrators: Lectures at association meetings, or in combination with physician and hospital personnel meetings.
- Spouses and families of physicians: Educational material available at state and county medical society and auxiliary meetings.
- Legal profession: Urge lawyers, whose state association has an impaired lawyers program, to encourage their physician clients to use organized medicine's voluntary impaired physicians programs, when perceived needs arise.

Teaching staff. Teaching staff presents educational and prevention programs to the various target groups. The physician team approach is employed, with at least one team member being in the process of recovering from alcohol or other chemical dependency.

SMS Speaker of the House Richard G. Roberts, MD, came to the annual meeting prepared for the bright lights of media attention.

Literature is available to assist in an understanding of the disease of chemical dependency, and to explain intervention, treatment, and follow-up resources.

Phase II: Intervention and treatment
Successful programs include the availability of physician interveners to perform compassionate colleague-to-colleague contact with those physicians identified as impaired.

Approximately 35 trained physicians throughout Wisconsin are available to meet with their impaired colleagues and urge them to leave the medical practice to enter suitable programs for evaluation and treatment. Interveners act as teams. At least one intervener is either expert in or recovering from the impairment of concern. The initial intervention is always a compassionate encounter. The Wis-

The Charles Night Strings added to the luster of the 1989 President's Dinner.

consin program has no interest in the punitive or coercive approach until all benevolent measures have been exhausted. An intervener's interests are the personal well-being of a colleague, and the quality of health care for patients.

The Impaired Physician Program adheres to the policy that satisfactory recovery from chemical dependency can only be realized through a monitored two-year recovery period. It considers the two-year after hospitalization component to be vital to assuring continued recovery.

Phase III: Benevolent assistance

In addition to the burdens of impairment, some physicians are financially unable to pay the cost of inpatient care. By estimate, at least 10% of Wisconsin's impaired physicians have either inadequate health insurance or none at all. Some have been ill for so long that their financial resources essentially have been depleted. About 10% of the charges for rehabilitation of such physicians go unpaid. For 20% of impaired physicians, residence and treatment in recovery homes (average of three months' stay, at a cost of $1,800 per month) is essential for completion of the two-year recovery program. Unfortunately, no long-term provision has been established to allow realization of the program commitment to a two-year recovery program.

With approval of the SMS and CES Foundation Board of Directors, the Impaired Physician Program established a Physicians Benevolent Assistance Fund, accomplished through pledges to the CES Foundation, earmarked for the Benevolent Assistance Fund. The fund appeal among members of the SMS and Wisconsin hospitals was designed to develop a fund of $150,000 for low-interest loans to impaired physicians, who can repay them after returning to medical practice.

Physician placement services

The Society's placement service maintains a list of names and biographical data on physicians who wish to locate in Wisconsin. Files are also maintained on communities desiring physicians. Information is exchanged with interested physicians and communities, the AMA, and Wisconsin's medical schools. There is no charge for this service.

A list of openings is sent to physicians who contact the placement service indicating a desire to move to Wisconsin or to relocate within the state. A list of physicians is sent to communities requesting assistance in obtaining a physician. The physicians and communities may then contact one another. Physicians seeking associates also may request a list of available physicians.

Experience shows that physicians seek locations on a long-range basis—some are available at once, while others are in residency for two or three years. Please advise the placement service of your needs as soon as possible. Overnight results sometimes occur, but more time usually means better results.

It should be noted that the placement service is not in the business of recruiting. It is supported by the membership of the SMS. The Society does, however, cooperate with the state-supported Office of Rural Health in its New Physicians for Wisconsin Program, which provides placement services to communities and physicians on a fee basis determined by budgetary funds available.

Physicians and communities may also use the medical yellow pages section of the *Wisconsin Medical Journal*. This classified advertising section is available to SMS members, other physicians, communities, clinics, hospitals, recruitment firms, and others at reasonable rates.

Physicians using the placement service have described it as one of the most effective in the United States. *WMJ* advertising, too, has proved highly successful.

Inquiries should be addressed to: Placement Service, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701; 608-257-6781; or to the *Wisconsin Medical Journal*, Box 1109, Madison, WI 53701.

Accreditation of continuing medical education

The SMS's accreditation program functions under the authority of the AMA's Accreditation Council for Continuing Medical Education (ACCME). Representatives from state medical societies, national medical specialty societies, the AMA Section on Medical Schools and Resident Physician's Section, the National Medical Association, the American Hospital Association, the Association for Hospital Medical Education, the Federation of State Medical Boards, and medical specialty boards comprise the ACCME.

The SMS Commission on Continuing Medical Education and its Subcommittee on Accreditation currently review and accredit 56 hospitals, 24 specialty societies, and one county medical society in Wisconsin. Information is available from Kristin Bjurstrom Krueger or Lisa Lawry at the SMS.

Category 1 *CME activities with accredited sponsorship.* Education activities that are a part of a planned program of continuing medical education and sponsored by an accredited organization.

Category 2 *CME activities with an accredited or non-accredited organization.*

- CME lectures and seminars not designated as Category I by an accredited sponsor;

Example of severe rickets in a sunny clime. Courtesy of E. H. Christopherson, M.D., San Diego, and of "California and Western Medicine."

A Mead Johnson & Company ad from the 1938 Wisconsin Medical Journal.

- medical teaching;
- articles, publications, books, and exhibits;
- non-supervised individual CME, including self-instruction, consultation, patient care review, and self assessment; and
- other meritorious learning experiences.

The following Wisconsin organizations were accredited by SMSW and ACCME for continuing medical education programming as of Jan 1, 1989:

Accredited hospitals

Appleton Memorial and St Elizabeth Hospitals, Appleton
Bellin Memorial Hospital, Green Bay
Beloit Memorial Hospital, Beloit
Berlin Memorial Hospital, Berlin
Columbia Hospital, Milwaukee
Community Memorial Hospital, Menomonee Falls
Fort Atkinson Memorial Hospital, Fort Atkinson
Good Samaritan Medical Center, Lutheran Deaconess, Milwaukee
Gundersen Medical Foundation, Ltd and La Crosse Lutheran Hospital, La Crosse
Hartford Memorial Hospital, Hartford
Howard Young Medical Center, Woodruff
Kenosha Memorial Hospital, Kenosha
Lakeland Hospital, Elkhorn
Langlade County Memorial Hospital, Antigo
Luther Hospital, Eau Claire
Memorial Hospital of Iowa County, Dodgeville
Memorial Hospital at Oconomowoc, Oconomowoc
Mercy Hospital, Janesville
Mercy Medical Center, Oshkosh
Meriter Hospital, Madison
Mount Sinai Medical Center, Milwaukee
Reedsburg Memorial Hospital, Reedsburg
Riverside Community Hospital, Waupaca
Sacred Heart Hospital, Eau Claire
Sacred Heart-St Mary's Hospital, Inc, Rhinelander
Sauk Prairie Memorial Hospital, Prairie du Sac
Shawano Community Hospital, Shawano
Sheboygan Memorial–St Nicholas Hospitals, Sheboygan
St Agnes Hospital, Fond du Lac
St Anthony's Family Medical Center, Milwaukee
St Catherine's Hospital, Kenosha
St Clare Hospital, Baraboo
St Clare Hospital, Monroe
St Francis Medical Center, La Crosse
St Francis Hospital, Milwaukee
St Joseph's Hospital, Chippewa Falls
St Joseph's Hospital & Marshfield Clinic, Marshfield

St Joseph's Hospital, Milwaukee
St Joseph's Community Hospital, West Bend
St Luke's Hospital, Milwaukee
St Mary's Hospital Medical Center, Madison
St Mary's Hospital, Milwaukee
St Mary's Hospital, Port Washington
St Michael Hospital, Milwaukee
St Michael's Hospital, Stevens Point
St Vincent Hospital, Green Bay
Stoughton Hospital Association, Stoughton
Theda Clark Regional Medical Center, Neenah
Trinity Memorial Hospital, Cudahy
Veterans Administration Medical Center, Tomah
Watertown Memorial Hospital, Watertown
Waukesha Memorial Hospital, Waukesha
Wausau Medical Center, Wausau
West Allis Memorial Hospital, West Allis
Winnebago Mental Health Institute, Winnebago

Accredited specialties

American Cancer Society, Wisconsin Affiliate, Madison
American Heart Association of Wisconsin, Milwaukee
Arthritis Foundation, Wisconsin Chapter
Blount and Schmidt Spinal Study Group
Fox Valley Academy of Medicine
Milwaukee Academy of Medicine
Milwaukee Gynecological Society
Milwaukee Ophthalmological Society
Milwaukee Orthopaedic Society
Racine Academy of Medicine
Wisconsin Academy of Family Physicians
Wisconsin Academy of Ophthalmology
Wisconsin Allergy Society
Wisconsin Association for Perinatal Care
Wisconsin Dermatological Society
Wisconsin Neurological Society
Wisconsin Psychiatric Association
Wisconsin Surgical Society
Wisconsin Society of Obstetrics and Gynecology
Wisconsin Society of Otolaryngology—Head and Neck Surgery
Wisconsin Society of Pathologists
Wisconsin Society of Plastic Surgeons
Wisconsin Society of Radiation Oncologists
Wisconsin Urological Society

Accredited county medical societies

Marinette-Florence County Medical Society

ACCME accredited

Medical College of Wisconsin
UW Center for Health Sciences
Interstate Postgraduate Medical Association
State Medical Society of Wisconsin
Wisconsin Society of Anesthesiologists

SMS hires new assistant secretary

James E. Paxton

James E. Paxton joined the State Medical Society in June as the new assistant secretary, succeeding H. Bernie Maroney who recently retired from the SMS after 26 years of service.

Paxton, of Mechanicsburg, Pa, comes to the Society from the Pennsylvania Medical Society, where he had been assistant executive vice president. He had been with the Pennsylvania society since 1976.

"I'm extremely pleased that someone of Jim's experience and background has joined the Society," said Thomas L. Adams, SMS secretary and general manager. "He is a recognized leader among medical association executives and brings 13 years of experience in association management to the Society."

At the SMS, Paxton will be involved in, among other things, general SMS management, the SMS House of Delegates, the CES Foundation, AMA delegates, policies and activities, and state and county medical society bylaws.

"I'm absolutely thrilled to be here," said Paxton. "The SMS's long-standing national reputation as a leader among medical societies played a big role in making the move to Wisconsin so appealing, as did the vitality of Wisconsin's medical community. I'm here to serve the SMS members, and I look forward to working with them and to getting to know as many of them as I can."

Paxton holds a master's degree from Shippensburg University of Pennsylvania. He and his wife, Danice, have two daughters.

Publications and reprints available

Occupational Health Guide
This 3-ring binder contains information for medical and nursing personnel. One to five copies, $45 each; more than five, $40 each, including postage. Wisconsin residents add 5% sales tax. Make checks payable to: CES Foundation, PO Box 1109, Madison, WI 53701. *Payment must accompany the order.*

Getting the Most Out of Your Health Care Dollar.
A brochure designed to help patients spend their health-care dollars more wisely, show where the nation's health care expenditures go, and explain what physicians are doing to control health care costs.

Rubella-Red Measles
This brochure, which alerts women of the need for pre-pregnancy Rubella immunizations and reminds parents to have their children immunized for red measles, is small enough to include with billing statements as well as distribute in waiting rooms.

A Practical Guide to Public Relations
This booklet is designed to assist Wisconsin's county medical societies to enhance their public relations efforts in their own communities.

To All My Patients, Partners in Good Health
This poster and small brochure explain the rights and responsibilities physicians and their patients have in the rendering and receiving of medical care.

Update: A Guide to Medicare Audits and the WIPRO Review Process
Why physicians are reviewed, the types of reviews, and tips on surviving a review.

Update: Wisconsin's New Law on Medical Liability
This booklet contains a detailed analysis of the 1986 Legislature's first attempt to enact medical liability tort reforms.

Update REACH: Resource for Education Awareness of Community Health
Examining the changing nature of the public's image of physicians and explaining SMS media policies and programs on current medical issues.

If You Have a Complaint About Medical Care
This brochure explains the SMS's grievance and peer review system.

Make Yours a Smokeless Pregnancy
This important brochure drives home the very real dangers to, and effects on, the fetus of smoking during pregnancy.

Worker's Compensation
The SMS makes available to physicians several brochures and booklets designed to ease the burden of worker's compensation cases. Titles include: "How to Evaluate Permanent Disability," "Wisconsin Doctors and Worker's Compensation," and "Using the WC-16B for Worker's Compensation."

Wisconsin Impaired Physician Program
This brochure reviews the philosophy and mechanics of the SMS program.

Some Straight "Dope" on Marijuana
What marijuana is, who uses it, and the hazards—psychological and physiological—associated with its use.

What's Wrong with Medicare?
Subtitled: "What Every Senior Citizen Needs to Know About Medicare and Mandatory Assignment," this is an important new brochure for Wisconsin's waiting rooms. In easy-to-read type in an easy-to-understand question-and-answer format, the brochure is designed to dispel the current Medicare confusion and mandatory assignment mythology.

The Liability Crisis in Wisconsin
A new patient education brochure that explains why your patients should care about your medical malpractice liability costs, what the problem is, what can be done, and what they can do about it. The emphasis of the brochure is on the proposed $250,000 cap on non-economic awards.

Medical Professional Liability Insurance: Claims Made or Occurrence?
This new brochure explains for physicians how the policies work, how premiums are established, how coverage is terminated, the limits of liability and how to decide between the types of coverage.

Questions and Answers on Smokeless Tobacco
Part of the revived *Health Watch* series, this patient education brochure explains smokeless tobacco and its dangers in very plain language.

Facts About Malignant Melanoma
Part of the revived *Health Watch* series, this patient education brochure explains who is most at risk, how to detect and prevent melanoma, and how to conduct a self-examination.

Child Abuse: The Family Killer
Prepared under the direction of the SMS ad hoc Committee on Child Abuse and Neglect, this booklet covers signs of physical and sexual, and emotional abuse; neglect; medical intervention; interviewing techniques for talking to children and adults; and treatment programs.

Speakers Bureau: Committee on Alcoholism and Other Drug Abuse
How to contact Wisconsin physicians willing and able to speak on alcoholism and drug abuse, and the topics they cover, as well as what physicians can and cannot do for actively drinking alcoholics and chemically dependent patients.

PartnerCare
A poster and brochure aimed at educating elderly low-income patients about this important SMS voluntary Medicare assignment program.

Foundation news

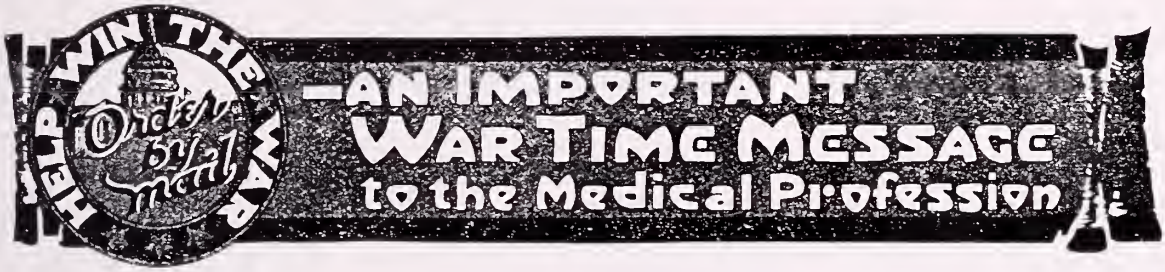
Thanks to the efforts of a tremendous number of physicians, who have been entrusted with the responsibility of sharing the cost of providing financial contributions, the foundation is supporting a greater number of programs on a broader spectrum.

The list of grants provided by the foundation during the first half of 1989 spells substantial achievement. Through physician support and leadership, the foundation hopes to encourage similar support from others.

With CESF financial support, the Richland Professions for Child Abuse Prevention, Inc, published a revised edition of a coloring book, *The Right Touch*. Talking openly with children so that they understand sexual abuse is one of the best ways of preventing it. This coloring book has been developed to help parents and educators discuss with children the issues that surround sexual abuse and molestation. Special attention has been given to illustrating the different kinds of touching, and emphasis is given to the children's rights to privacy and to control over their bodies.

The Wisconsin Safety Patrols, Inc, rewards the efforts of outstanding safety patrol members by sending them to our nation's capitol. The foundation sponsored a delegate to this five-day tour.

The Wisconsin Federation of Parents for Drug Free Youth held its sixth parents' conference in Fond du Lac during mid-April. The founda-



UNCLE SAM SAYS: In order to conserve materials and labor for the products necessary to **WIN THE WAR**

Manufacturers must discontinue thousands of items which are not in the essential list. Many lines have been cut to a few patterns. Others have been discontinued entirely and cannot be produced again until

THE WAR HAS BEEN WON

WHEN THE ORDER CAME our warehouses were full of finished goods, and this alone has enabled us to fill 95% of all orders to date.

ORDER NOW, WHILE THE STOCK LASTS. PRICES WILL NEVER BE LOWER

Send for catalogues or special literature on the following lines

Hospital Equipment	Electric Light Bath Cabinets	First Aid Outfits
Surgical Instruments and Supplies	Invalid Chairs—Crutches	Nebulizers—Atomizers
X-Ray and High Frequency Apparatus	Orthopedic Apparatus	Rubber Goods—Syringes, etc.
Electrical Appliances—Batteries	Artificial Limbs—Elastic Stockings	Leather Goods—Bags, Cases, etc
Vibrators and Massage Tables	Trusses and Abdominal Supporters	Glassware—Thermometers
Hot Air Apparatus	Drugs and Pharmaceuticals	Blood Pressure and Cupping Apparatus

Mark an "X" in front of the items desired and literature will be sent immediately

FRANK. S. BETZ. CO. ★ ★ ★ Hammond, Ind.

A Frank S. Betz Company ad from the 1919 Wisconsin Medical Journal.

tion provided financial assistance toward the speaking expenses of a specialist in child development and management.

The foundation has continued to give grants toward the sciences. Support was given toward the 1989 Wisconsin Science Olympiad and Wisconsin Science Congress.

The foundation's drive to raise funds for the repair of the medical museum in Prairie du Chien received contributions (as of press time) from Gaarder Miller of Milwaukee, Ltd; the Wisconsin Medical Group Management Association; Lederle Laboratories; Rorer Pharmaceutical Corporation; HLR (a division of Hoffman-LaRoche, Inc); ICI Pharmaceuticals Group; Merck, Sharp and Dohme; Sandoz Pharmaceuticals; Abbot Laboratories; Syntex Laboratories, Inc; and the Eli Lilly and Company Foundation.

The Foundation also has recently received a generous donation from the Squibb Corporation to assist the foundation with its funding of various activities.

For further information regarding the CES Foundation, please contact Jean Steele, CES Foundation, PO Box 1109, Madison, WI 53701; 608-257-6781.

The Beaumont 500

The Fort Crawford Medical Museum is unique among educational and cultural institutions in the Midwest and the nation. Far more than a museum, it stands as a tribute to Wisconsin's physicians who have dedicated their lives to ensuring the health of the state's citizens. The museum is also a singular tool for educating the public about the prevention and treatment of injury and disease, the nature of medical care, the value of the physician-patient relationship, and the importance of keeping one's health.

The Fort Crawford military hospital, which has been designated a national landmark, and the related museum are located in Prairie du Chien near the Mississippi River.

The actual planning for the museum began in the 1930s when the SMS placed a granite memorial near the crumbling remains of the second Fort Crawford, which had been abandoned in 1872. In the mid 1940s, the SMS House of Delegates endorsed furnishing the hospital building as a museum. The property was deeded to the SMS Charitable, Educational and Scientific Foundation in the 1950s, and the SMS approved the completion of the museum complex, known officially as the Museum of Medical Progress. In 1964 the Stovall Hall of Health was added, which provided additional exhibit space.

In 1981, the MMP Endowment Fund was established to provide financial support for the museum. Over the years more than 200,000 visitors have toured the museum, yet it continues to face financial hardship and is in need of frequent repair. The fund's directors have established a goal of $500,000 to secure the continued operation and maintenance of the complex.

The first 500 persons who contribute $1,000 or more to the MMP Endowment Fund will join a select group known as the Beaumont 500 and will receive a specially designed Beaumont medallion. Currently, there are 52 members of the Beaumont 500 club with 20 established pledges.

The SMS Auxiliary and county auxiliarys have taken on the Beaumont 500 Club as a challenge project. Each county auxiliary is asked to pledge $1,000 toward the club over a specified time, probably 4 to 5 years, and challenge their county medical society to provide matching funds. Many of the auxiliaries and county medical societies have accepted this challenge and the project has had a successful start.

For more information about the Beaumont 500 Club, please contact Jean Steele at the CES foundation at 1-800-362-9080 or 608-257-6781

Beaumont 500 members: 1980

Pierce–St Croix County Medical Society

1981

Mr and Mrs Robert B. Murphy
Guy W. Carlson, MD
W. Bruce Fye, MD
Pauline M. Jackson, MD
Dr and Mrs William D. Janssen
Dr and Mrs T. A. Leonard
E. J. Nordby, MD
Karver L. Puestow, MD
John D. Riesch, MD

1982

anonymous
Marion Crownhart
E. M. Dessloch, MD
Melvin F. Huth, MD
Michael F. Ries, MD
E. A. Steffen, MD
Kenneth M. Viste, Jr, MD

1983

W. Bradford Martin, MD
Earl R. and Alice Thayer

1984
Dr and Mrs K. Alan Stormo
Dr and Mrs Chesley Erwin
Dr and Mrs Leonard B. Torkelson
Leland C. Pomanville, MD
Mrs W. D. Hoard
Dr and Mrs Ralph Hudson

1985
Dr and Mrs Roger von Heimburg
Dr and Mrs Bertram H. Dessel
Mace Garrison Zinggeler
Dr and Mrs Benjamin Brunkow
Robert T. Cooney, MD
Staff of the State Medical Society of Wisconsin

1986
Dr and Mrs William Listwan
Richard W. Edwards, MD
Amy Hunter-Wilson, MD
Kari, Doran and Kenneth Viste
Roy Selby, MD

1987
Sandra Osborn, MD
Timothy T. Flaherty, MD
Washington County Medical Society
Dr and Mrs Roland R. Liebenow
Racine County Medical Auxiliary
State Medical Society of Wisconsin

1988
Jefferson County Medical Society
Milwaukee County Medical Auxiliary
Milwaukee County Medical Society
Dr and Mrs Victor Wong
Physicians Insurance Company of Wisconsin
Dr and Mrs Ken Smigielski
Kenneth M. Viste, Jr, MD, in honor of the SMS staff
Joan Flaherty
Edward A. Burg, Jr, MD, family
SMS Services, Inc

Beaumont 500 pledges
Brown County Medical Society Auxiliary
Columbia-Marquette-Adams County Medical Society
Dodge County Medical Society Auxiliary
Eau Claire-Dunn-Pepin Medical Society Auxiliary
Fond du Lac County Medical Society Auxiliary
Kenosha County Medical Society
La Crosse County Medical Society
La Crosse County Medical Society Auxiliary
Manitowoc County Medical Society Auxilary
Oconto County Medical Society
Sheboygan County Medical Society Auxiliary
State Medical Society Auxiliary
Trempealeau-Jackson-Buffalo County Medical Society
Vernon County Medical Society
Waukesha County Medical Society Auxiliary
Winnebago County Medical Society
Winnebago County Medical Society Auxiliary
Thomas and Diane Adams
Dr and Mrs Robert Baldwin
Dr Gerald Kempthorne in memorium of father Guy Kempthorne
Dr and Mrs David and Mary Weber
Dr and Mrs Raymond Zastrow

A guide to giving

Thanks to the efforts of many physicians, who have been entrusted with the responsibility of sharing this cost by providing voluntary contributions, a great number of programs on a broad spectrum are receiving assistance from the CES Foundation.

Contributions provide financial aid to Wisconsin students of medicine and allied health professions, sponsors postgraduate teaching programs, stimulates research into areas of medicine and public health and promotes the preservation of medical history.

Gifts to the foundation may take a number of forms: cash, bequests, trusts, life insurance, real estate, stock or other securities—some physicians are making the foundation a beneficiary of their wills. To assist the foundation with providing grants to various well-deserving programs, a person may wish to consider these relatively simple ways of support.

Such gifts may be designated as unrestricted or for specific immediate use at the discretion of the foundation trustees. They may also be restricted or earmarked for specific purposes of interest to the donor. Likewise, these gifts may also be designated for permanent investment with only the income used to support foundation programs.

Cash gifts. Most gifts received by the foundation are in the form of cash, personal checks made payable to the CES Foundation. These gifts, as well as others, may be designated in honor of a relative, friend or associate. The foundation maintains a memorial program which gives the donor an opportunity to remember someone through a gift to the foundation—a living memorial. A memorial card is sent to the family with the name of the deceased and the name of the donor. The amount of the gift is not indicated. The donor will receive a card thanking them for their donation.

Bequests. A bequest is the giving of property by will. The will is designed to assure that upon death the property is distributed exactly in accord

with the donor's wishes. One of the purposes of a will can be to perpetuate the donor's name or that of a friend through an organization such as the CES Foundation. Donors can achieve such a purpose to benefit the foundation with the following simple wording in their wills:

> I give to the CES Foundation of the State Medical Society of Wisconsin, a nonprofit, nonstock Wisconsin Corporation, the sum of $X (or specifically described personal property.)

A codicil is an amendment or revision of a previously executed will. An attorney can draft it with minimal cost should donors wish to add a bequest to the CES Foundation to their will.

Gifts of life insurance. Life insurance offers an easy means to make a substantial gift as well as to provide tax advantages for the donor. A policy can be assigned to the foundation whether it is paid up, partially paid up, or new. Proceeds from such policies may be exempt from estate taxes and if the assignment is irrevocable, present values and future premium payments may qualify as charitable contributions for income tax purposes. The gift of life insurance is deductible, usually at its cash surrender value, at the time of transfer to the foundation. Arrangements may also be made to provide life income for a beneficiary by having the proceeds placed in a gift income plan with the proceeds placed in a gift income plan with the proceeds, following the life of the beneficiary, to go to the foundation. This plan also gives donors the satisfaction of making contributions and being recognized for it during their lifetimes.

Real estate. Any standard form of warranty deed or acceptable quit claim deed may be used to deliver real estate to the foundation.

Stock or other securities. Current gifts may take the form of stock or other securities which have appreciated in value. Gift of appreciated securities permit the donor to realize substantial tax advantages.

Personal property. Some donors prefer to make gifts of art, jewelry, antiques, rare books, furniture, or collectibles of other types such as stamps, coins, etc. For tax purposes, the donor must determine the value of a personal property gift on the date of its transfer to the foundation.

Trusts. Some find it advantageous to make a contribution to the foundation, but retain the income from the contribution for the duration of their life or the lives of others. There are important tax advantages to these arrangements. The trustee of such "living trusts" may be a bank, trust company or the foundation.

Among the several types of living trusts are: annuity gifts; pooled income gifts; unitrust gifts, deferred payment gift annuities, revocable life income plans. If you are interested in the living trust program, contact your legal adviser.

Foundation facts

The SMS Charitable, Educational and Scientific Foundation is a nonprofit, non-stock Wisconsin corporation, chartered in June 1955. Its purpose is to "engage in, assist, and contribute to the support of charitable, educational, and scientific activities and projects and to contribute to the support of, and to create and maintain, charitable, educational, and scientific institutions, organizations, and funds of any and every kind.

Management. The foundation's governing power is vested in a board of trustees composed of directors and officers of the SMS, other medical and non-medical members elected by the board of directors and one representative elected by each component medical society. Non-medical members may be elected from time to time by the SMS Board of Directors, but the number of such trustees shall not at any time be less than five or more than ten.

The board of directors of the corporate trustees consists of 15 members including the president, vice president and treasurer of CESF, and in addition, 12 members, seven of whom may be non-medical trustees, each elected for staggered three year terms.

Registration. The foundation is registered with the Secretary of State as a charitable organization for purposes of contributions and fund-raising under §440.41(2) of the Wisconsin Statutes.

Legal. The foundation retains Robert B.L. Murphy of the firm Murphy & Desmond, SC, 2 E Mifflin St, Mad-

ison, WI 53703; 608-257-7181, for advice on legal and tax matters.

Tax Information. Contributions to the CES Foundation are tax deductible under both state and federal tax laws. The foundation is a 501(c)(3) corporation. As in all matters relating to your financial affairs, the valuation, form and tax aspects of gifts, to the foundation should be discussed with your attorney, accountant or other advisor.

FORT CRAWFORD MEDICAL MUSEUM
PRAIRIE DU CHIEN, WISCONSIN

Open daily May 1 through October 31
10 a.m. to 5 p.m.
Adults $2 Children $.50

Three building complex owned by the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin

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Staff

Special assistant to the secretary for foundation administration: Jean M. Steele, Madison

Beaumont Lecture Award

The 1989 William Beaumont Memorial Lecture given by Harry A. Oberhelman, Jr, MD, of the Stanford Medical Center, in Palo Alto, Calif.

Established by the SMS in 1957, the William Beaumont Memorial Lecture is intended to present distinguished medical scientists, whose research and clinical experience may enrich the knowledge and skills of Wisconsin practitioners, to members of the Society. The lecture is given each year during the surgery program of the SMS's annual meeting to honor William Beaumont, a US Army surgeon who, in the 1830s, performed a series of experiments on digestion that laid the foundation for understanding the phenomenon.

Dr Oberhelman received the award from Roger von Heimburg, MD. The SMS Charitable, Educational and Scientific Foundation administers the Beaumont Award Fund.

Houghton Award

The Houghton Award of the SMS Charitable, Educational and Scientific Foundation is presented each year to senior medical school students who demonstrate scholastic excellence, extracurricular achievement, and interest in medical organization. Winners receive a check for $250 and an engraved plaque, both of which are presented at the Society's annual meeting.

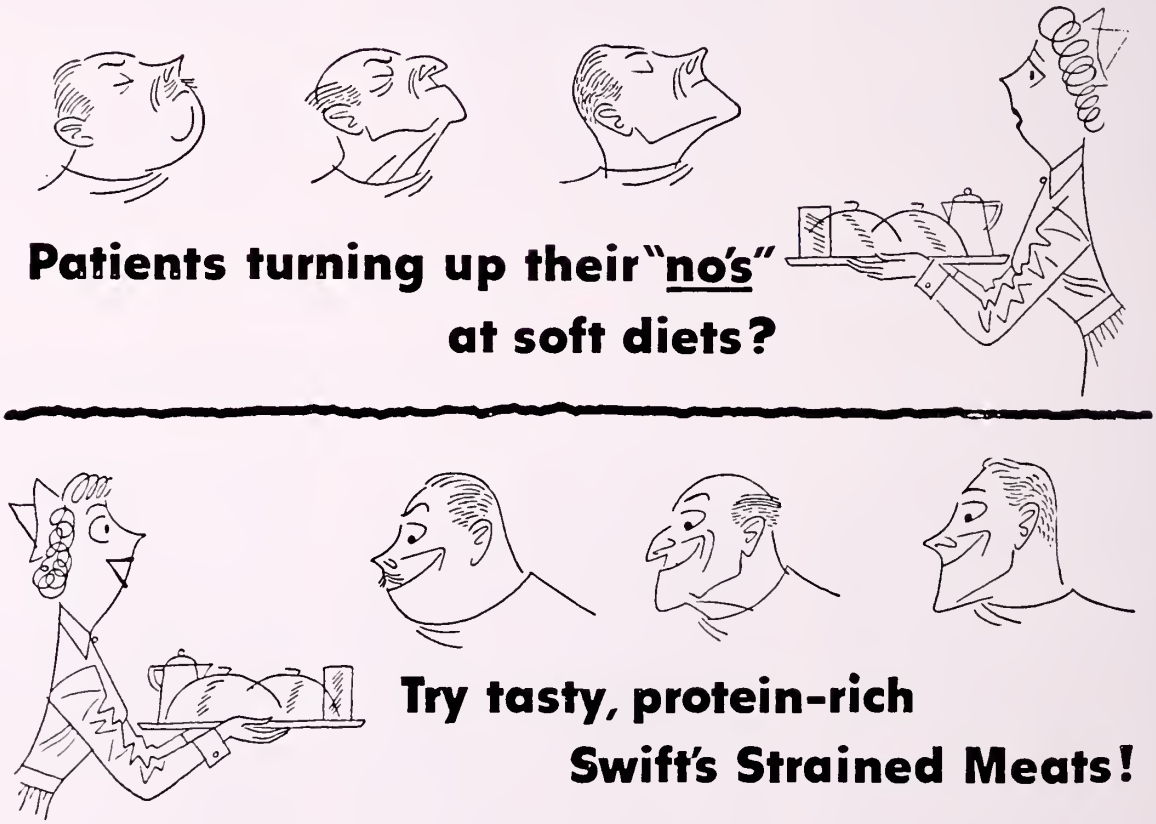
Recipients of the 1989 Houghton Award are Mark A. Weiner, a senior at the University of Wisconsin Med-

ical School in Madison, and Lucy A. Runde, a senior at the Medical College of Wisconsin in Milwaukee.

Weiner's many activities include a year as president of the medical student section of the AMA and SMS (1986–1987), followed by a term as student member of the SMS Board of Directors (1987–1988). He is currently serving as a student member of the SMS Medical Liability Committee and has worked to develop the Observe and Learn Program for first- and second-year medical students wanting to spend time with a private practicing physician in Dane County. Weiner is planning a residency in neurosurgery.

Runde, of Platteville, graduated magna cum laude from Viterbo College in 1984 with a degree in biology. Runde served as a student interviewer for the Medical College of Wisconsin's admissions committee, a peer counsellor, a student leader of the freshman orientation program, and a student representative to the executive committee of the faculty. She is a member of the AMA, AMSA, and SMS, and plans to pursue a specialty in family practice.

Robert T. Cooney, MD, (left) presents the 1989 Houghton Awards to Lucy A. Runde, (center) and Mark A. Weiner (right).



A whimsical ad from Swift's Strained Meats in the 1949 WMJ.

The history of the CES Foundation

The Charitable, Educational and Scientific Foundation was chartered by the SMS in 1955 as a private, nonprofit, non-stock corporation to enable physicians and other friends of the profession to support, through gifts and grants, projects vitally affecting scientific medicine and public health. The foundation's scope of interest has grown with increased volume of financial contributions to a broad spectrum of worthy programs affecting medical and health care needs in Wisconsin.

The foundation's record of accomplishments is substantial, with the future holding an array of opportunities and challenges.

Benevolent assistance. The CES Foundation is ever sensitive to the needs of people who are the victims of adversity. Although the foundation's capacity in dollars has been limited, it has often been able to arouse the spirit of caring among physicians and the public when special needs arise. Assistance is looked at as an investment in the future and not as charity.

Principal among its benevolent activities has been aid to physicians and their families made destitute by illness or injury. The largest of these benevolent efforts is the program of support for the state's two medical schools through contributions to the CESF-AMA Educational Research Fund. This activity is under the leadership of the Auxiliary to the State Medical Society and its numerous county auxiliaries.

Education. Postgraduate teaching programs are a major thrust of the foundation. With CES Foundation support, the medical society's program of accreditation of continuing medical education, initiated in 1976, continues to move forward with increasing success. This effort now has accredited continuing education in 76 hospitals, 34 medical specialty societies and one county medical society. This effort has greatly expanded the availability of quality postgraduate learning opportunities for Wisconsin physicians and allied health personnel.

Funding from the foundation's Barbara Scott Maroney Memorial Fund for Research on Diabetes support special research projects, summer camp scholarships for diabetic children, publication of scientific articles or presentation of scientific speakers on the subject.

The foundation makes grants available to organizations striving to stimulate student interest in science and expose them to wide varieties of science related careers. Annually, the CES Foundation recognizes outstanding achievements in student science research by high school and middle school students in Wisconsin through contributions for awards to the Wisconsin Science Congress and the Wisconsin Science Olympiad.

The Workshop on Health, a health education program for high school students, has featured such topics as anorexia nervosa, eating disorders, sexually transmitted diseases, teen suicide, alcohol and drug abuse, and wellness. The 26th annual workshop featured Tom Trebelhorn, manager of the Milwaukee Brewers. His keynote address, entitled "Reach for the Stars," was well received.

Student loans, grants and scholarships. One of the most important activities of the CES Foundation is the student loan program. Established in 1955, the foundation's general student loan fund is designed to assist needy, deserving students preparing for careers in medicine, dentistry, pharmacy, nursing, and other allied health fields. Long-term, low-interest loans are interest-free until after the student graduates. Personnel in the financial aid departments of Wisconsin schools cooperate with the foundation in identifying needy and deserving students.

Many young men and women can achieve their medical careers only because of the availability of large, low-interest loans. In fact, the average medical student today can anticipate graduating with debt obligations ranging from $50,000 to $75,000. In 1988, the foundation granted 63 loans

Elvehjem Lecture Award

Bruce W. Fry, MD, of Marshfield, presented the 1989 Elvehjem Memorial Lecture April 15 during the internal medicine program at the SMS annual meeting. Dr Fry's lecture was entitled "Diagnostic modalities in chronic heart failure: echocardiagram with doppler."

The Elvehjem Memorial Lecture was established in 1962 to honor the memory of Conrad A. Elvehjem, PhD, the 13th president of the University of Wisconsin and an internationally recognized authority in biochemistry. His most noted scientific achievement was the isolation of nicotinic acid, which led to the cure for human pellagra. The lecture is a project of the SMS Charitable, Educational and Scientific Foundation and is intended to perpetuate Dr Elvehjem's contribution to the health of Wisconsin's citizens and the continuing medical education of physicians. Kenneth Gold, MD, of Beloit, presented the Elvehjem Award to Dr Fry.

to medical and allied health students for a total of $126,215. Repayments in 1988 total $54,968. Since the loan fund was established, 978 students have received $1,305,742 in long-term, low-interest loans.

Although the foundation's primary emphasis is in loans, some outright scholarships and grants are made to fulfill the wishes of some donors and the needs of certain potential recipients. These special health career student loan and scholarship funds are administered by the foundation according to the wishes of the individual or organization establishing and supporting the fund.

For example, a county medical society auxiliary may make an original endowment to the CES Foundation to establish a student loan or scholarship fund in the county auxiliary's name. The county auxiliary, as the benefactor may work with the foundation to determine what restrictions, if any, are to be placed on the loans. Such restrictions may include residency requirements, career specifications, educational facility, limitation on year of study, and dollar amounts.

In establishing a special student loan or scholarship fund with the CES Foundation, the following point should be considered:

- Direct expenses incurred by the foundation in administering the fund will be charged to the fund. (All funds are charged an administrative fee equal to 25% of all income earned by the fund on an annual basis.)
- In the event it is mutually determined that the purpose for which the special loan or scholarship fund was established no longer exists, the remainder of the fund will be turned over to the board of trustees of the CES Foundation to use for other charitable, educational and scientific purposes.
- The foundation may invest and reinvest assets of the fund in accordance with prudent investment policies, and any interest or appreciation earned by such investments will accrue to the fund.
- The foundation may at its discretion accept additional contributions to the fund, accept accelerated payments of obligations to the fund, waive repayment in hardship cases, and increase or decrease rates of interest as the demands for loans may dictate.
- The decision to approve individual loan applications, amount of loan, and terms of repayment will be made only by the CES Foundation and will be based on the need demonstrated and availability of funds.
- Applications will be accepted and considered without regard to race, creed, color or national origin.
- Application blanks may be procured from the CES Foundation, 330 E Lakeside St, Madison, WI, 53715; the benefactor; or college financial aids office. The CES Foundation furnishes an annual accounting to the benefactor or sponsoring organization.

To inquire how you or your organization can establish a special student loan or scholarship fund, contact Jean M. Steele, special assistant to the secretary for foundation administration, 330 E Lakeside St, PO Box 1109, Madison, WI 53701; or phone 608-257-6781 (Madison area) or toll-free in Wisconsin 1-800-362-9080.

From the 1949 WMJ: Some issues have stamina.

PIC–Wisconsin: state of the corporation, 1989

For the Physicians Insurance Company of Wisconsin (PIC), 1988 was a watershed year, highlighted by the cutting of ties with Physicians Insurance Company of Ohio (PICO). On July 1, PIC assumed management of the company, and all of the employees of PICO Management Company of Wisconsin chose to become employees of PIC. In the transition agreement, PICO agreed to PIC's repurchase of PICO's ownership in PIC–Wisconsin. In December 1988, PIC submitted to PICO payment for services under the management contract and for PICO's entire ownership interest.

With the severing of ties with PICO, management sought to develop internal systems and controls more appropriately adapted to PIC's business. For instance, PIC created a prototype PC database system for the January renewals. The prototype demonstrated the need for a much more powerful system, and the company purchased a new mini-computer and software in late December.

Management also took steps toward building a middle management staff, especially in marketing and data processing. In September, the executive staff added a chief financial officer to assume primary responsibility for the accounting and investment functions. The number of staff members grew from 12 at the end of 1987 to 21 at the beginning of 1989.

PIC's claims and data services staffs developed a claim tracking system that will not only provide accurate reporting for all regulatory requirements and trade associations, but will also allow for detailed loss prevention information.

Several other notable services were altered during 1988. First, an actuarial study of PIC's death, disability, and retirement reserves was conducted to determine the soundness of the reserve. The results of the study indicated that PIC could alter its current benefits substantially: in the third quarter of 1988, the board approved a reduction in the retirement age from age 65 to 60.

Second, the offering of contractual liability to PIC policyholders was discontinued on Dec 31, 1988. The move, anticipated by the board as early as October 1986, was well received by the affected policyholders.

Finally, PIC developed a group policy and offered it to the Medical College of Wisconsin resident program. This group policy will serve as a prototype for a general clinic policy, which was scheduled for completion in the first quarter of 1989.

PIC's relationship with the SMS continues to thrive, and culminated in late 1988 in an agreement in principle to reimburse the Society for its sponsorship and support of PIC's program.

Financial results for 1988, while not available in final form at this writing, are on track with PIC's projections in last year's strategic plan. Stock contributions were more than $4.3 million for the year and, including the month of January 1989, totalled almost $5 million. Written premiums for the year exceeded $11 million.

A Praire du Chien physician making house calls (photo from the Medical Museum collection).

Projections for 1989 and beyond

First and foremost is the expected softening of the medical professional liability market in Wisconsin. Several large national insurance carriers are re-entering the Wisconsin market, and, more importantly, other companies are expected to attempt to gain entrance during 1989.

PIC will compete against those carriers with new products and strategic marketing. Key people have been employed, and will be employed, to shore up any weaknesses PIC may have and to allow PIC to aggressively pursue its corporate goals. PIC's agency system will be critically evaluated during 1989, with an eye toward expanding, developing, and supporting its representatives.

A number of products were scheduled to be reviewed by the underwriting committee in early 1989, including the long-awaited clinic policy and enhancements such as a provision for an extended leave of absence and premium financing.

Conclusion

This is expected to be a turbulent year for medical professional liability insurance. The aggressive and often irresponsible expansion of national and regional carriers, the unknown effect of California's Proposition 103, which mandates premium reductions of at least 20%, and the negative effects of the Tax Reform Act of 1986 on statutory financial statements must all be fiercely resisted.

Current issues in brief

Members are encouraged to contact SMS headquarters for further information: Phone 257-6781 in the Madison area, or 1-800-362-9080 toll-free in Wisconsin; or write PO Box 1109, Madison, WI 53701.

Abortion

Wisconsin, like several other states, has a law denying subsidies from any public source for non-therapeutic abortions except in cases in which conception results from sexual assault or incest. Laws of this nature have been subject to challenge in the courts in other states. The validity of Wisconsin's law, if challenged, cannot be predicted. In Wisconsin, spousal consent for abortion is not required by

CES Foundation
of the State Medical Society of Wisconsin

The persons and organizations named below made contributions to the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin for the month of April 1989.

Voluntary contributions
George Arndt, MD
Carroll A. Bauer, MD
Frank H. Belfus, MD
John F. Cary, MD
William M. Eby, MD
Cesar A. Garvida, MD
R. A. Jensen, MD
Maruthi M. P. Kantamneni
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Lyman W. Picotte, MD
Peter S. Rahko, MD
Scott Springman, MD
William H. Stone, MD
Gamber Tegtmeyer Sr, MD

Ft Crawford Endowment Fund
Gilbert Tybring, MD

Lakeside Endowment Fund
Thomas J. Doyle, MD

Beaumont 500
Thomas and Diane Adams
Fond du Lac Co Auxiliary
Dr and Mrs Steven Webster

Memorials
Thomas and Diane Adams
Noreen and Alan Krueger
H. B. and Carol Maroney
SMS
Jean and John Steele
Norma Swenson
Dr and Mrs Richard C. Ulmer
Terri and Dan Weaver

In memoriam
Louis Bernhard, MD
Myra E. Burke, MD
Elaine Wiersum
Donald R. Wilz, MD

Barbara Scott Maroney Fund for Research of Diabetes
H.B. and Carol Maroney

Health care for the uninsured conference donation
R. A. Jensen, MD

Financing the stone—AMA commemoration
Thomas Browning, MD
Timothy Flaherty, MD
Lucille B. Glicklich, MD
Kermit Newcomer, MD
Richard C. Ulmer, MD
Delore Williams, MD
Raymond Zastrow, MD

law. Physicians and hospitals are granted immunity from civil liability for refusal to perform abortions. In the case of the physician, this immunity is conditioned on the refusal having been based on religious or moral precepts. No hospital, school, or employer may discriminate against a physician in regard to employment, tenure, or staff privileges or status for refusal to perform abortions, if this refusal is based on religious or moral precepts.

Adoption

The 1982 *WMJ* Blue Book edition describes the process by which a potential adoptive parent adopts a child in Wisconsin. A child from Wisconsin or from another state or country may be adopted in this state with or without the services of an adoption agency. A list of adoption agencies appears elsewhere in this issue.

Certification

Wisconsin physicians are reminded that it is their responsibility, as well as to their advantage, to keep WPS-Medicare informed of any change in their specialty or certification status. To alleviate any confusion, each physician should be sure that the same specialty is shown with the various societies (eg, AMA, MEB, SMS)—there have been instances of different organizations showing different specialties for a single physician. Written documentation of such changes should be directed to the WPS-Medicare, PO Box 1787, Madison, WI 53701, Attention CPCU. Questions about specialty currently has on file at WPS-Medicare should be directed to the CPCU, or call 608-221 4711, ext 3420. Physicians also are urged to provide the same information to the Medicaid administrator: EDS-Federal, Provider Maintenance, at 608-221-4746.

Child abuse

Child abuse is found at all economic, educational, and social levels. The Wisconsin Abused Child Law (Wis Stats §48.981) was enacted to prohibit child abuse and prevent the cumulative effect of repeated beatings or other forms of severe abuse, including sexual exploitation, physical crippling, brain damage, and death. Intentional infliction of emotional damage to a child is also considered child abuse under the law. The Abused Child Law requires that physicians and others dealing with children to report suspected cases of abuse and cases in which injury is threatened and abuse is likely to occur. The law further provides that the reports be made to the city police departments, sheriffs, and county child welfare agencies. Civil as well as criminal immunity is granted where a report is made in good faith. For further information, refer to the special report on child abuse in the January, February, and March 1985 editions of the *WMJ*. Also see "Child abuse and neglect: The law—explanation and implication" (*Wis Med J* 1986;85(6):27).

Disability claims

The Social Security Administration will review certain disability claims in Illinois, Ohio, Michigan, Minnesota, and Wisconsin, where individuals with mental impairments were either denied disability benefits or terminated from the disability rolls. Certain individuals who were either denied social security disability benefits, were terminated on or after March 1, 1981, and before Jan 4, 1983, who alleged a mental impairment (other than mental retardation) and who were between the ages of 18 and 49 may have their eligibility reviewed. If you know of anyone who meets these requirements, the SSA of the US Department of Health and Human Services asks that you advise that person to either visit or telephone the local social security office to obtain further information. If you are representing such a person, you may contact a social security office on behalf of that person.

It is ironical that the practice of attempting to cure rickets by holding the child in the cleft of an ash tree was associated with the rising of the sun, the light of which we now know is in itself one of Nature's specifics.

From a 1937 Mead Johnson & Co ad in the WMJ.

Donations: organs and body

Wisconsin has adopted the Uniform Anatomical Gift Act, a law under which donors may leave all or any part of their bodies for research or transplantation. To assist physicians in providing the necessary information to patients, obtain further information from the Medical College of Wisconsin, Department of Anatomy and Cellular Biology, 8701 Watertown Plank Road, Milwaukee, WI 53226, or phone 414-257-8261; or University of Wisconsin–Madison, Department of Anatomy, 1300 University Ave, Madison, WI 53706; 608-262-2888.

Jury duty

Physicians are no longer automatically exempt from serving as a juror. There are, however, some qualifying circumstances under which a physician might be excused, in the discretion of a judge, for personal hardship

or extreme inconvenience to patients. Physicians interested in further details may contact the SMS.

Minor's consent
As a general rule, consent for medical services to be provided to an unemancipated minor must be given by the minor's parent, guardian, or court-appointed sustaining parent. Under appropriate circumstances, a court may give consent. Wisconsin law provides that a minor may receive diagnosis and treatment for venereal disease, Wis Stats §143.07, and drug abuse, Wis Stats §51.47, without parental consent.

SMS Secretary and General Manager Thomas L. Adams meets with the press to explain difficult socioeconomic issues.

Optometrist referral law
Wis Stats §449.01(3) requires any agency of the state, county, municipality, or school district to give the recipient of a vision screening program equal opportunity to choose between optometric or physician services for follow-up, as a consequence of vision screening. Wis Stats §449.19, which was passed at a later date by the Legislature, requires optometrists who determine the possibility of a pathologic condition to refer the patient to an "appropriate medical specialist" for further evaluation. The SMS, therefore, feels it appropriate that a public health nurse or other person who, as a result of screening tests believes there is reason to suspect glaucoma, should immediately refer the person examined directly to an ophthalmologist or other appropriate medical specialist. The SMS wishes to emphasize that the policy for nondiscrimination for referral to optometrists or physicians following tests for visual acuity must be respected and is encouraged.

Organ donation law
Since July 1, 1986, Wisconsin has had a required request law for organ donation. The law requires hospitals to have a system in place for making organ donation requests of family members in the event of a suitable donor's death. The law's intent is to address the demand for major organs (eg, heart, liver, kidneys) needed for transplantation, but the policies are applicable to other types of donations, such as eyes and tissue.

Physician's assistants (PA)
Under Wis Stats §S15.08(5), 227.04, 448.40, the state MEB governs the certification and regulation of physician's assistants. The Wisconsin Administrative Code contains specific regulatory codes regarding the physician's assistant's scope of practice, supervision by physician's, and the new prescribing rules found in Med 8.08. Under the new prescribing rules, the supervising physician may direct a PA to prepare a prescription order only if:

- a written protocol is used and reviewed annually;
- it is mutually determined that a PA is qualified through training and experience to prepare prescription orders as specified in the protocol;
- when practicable, the PA consults directly with the supervising physician prior to preparing an order;
- the order includes the supervising physician's telephone number, the PA's address; and
- the physician either reviews and countersigns before, within one day of preparation, or reviews within 48 hours and countersigns within one week.

PAs may not prepare a prescription order for a controlled substance, as defined in §161.01(4).

Standard casualty medical report
In 1963, the SMS and the Wisconsin Claims Council developed an agreement whereby physicians who file a standard short report form without charge receive insurance company support of their financial interest at the time of payment. The casualty companies and the SMS devised the form to protect the interests of physicians, companies, and insures. Because it is the standard report form

Reprints of the articles *Some consideration before opening a physician's practice* and *Some considerations in the closing of a physician's practice* from the 1988 *WMJ* Blue Book are available. Contact Sally Wencel or Sonia Porter at the SMS headquarters.

recognized by the Society, it cannot be changed by any insurer other than to add the logo of the insurance company requesting the information. Physicians are cautioned that this agreement only applies to the short form. If physicians are is asked to file lengthy narrative reports by an insurance company, they should expect payment for this additional service. Physicians usually get these forms from the insurance company involved.

HCFA 1500 health insurance claim forms can be ordered direct from SMS Services

- Format approved by DHSS and EDS Federal for Wisconsin Medical Assistance Program (WMAP) claims.
- Approved for Medicare billing.
- Accepted by all major insurance carriers.
- Available in one- or two-part form.
- Forms will be shipped to you within 24 hours after order received.

Place your order with SMS Services, Inc., PO Box 1109, Madison, WI 53701; or phone 608-257-6781 or toll-free in Wisconsin 800-362-9080; FAX 608-283-5401.

Medical liability insurance in Wisconsin

This article is intended to provide information about medical liability insurance and outline the rights and responsibilities of physicians and medical liability insurance carriers in the resolution of medical liability disputes.

Coverage and policies

Coverage. Medical liability insurance covers injuries arising out of the rendering, or failure to render, of professional services. In addition to treatment rendered by the insured physician, liability insurance policies may include coverage of the acts of employees (performed within the scope of such employment) and service by the insured as a member of a formal accreditation, standards review, peer review, or similar professional board or committee of a hospital or professional society.

SMS recommendations. Physicians should check their policies for a complete description of coverage, including what type of coverage they have if they assume liability by signing any type of medical care delivery contract that has a hold harmless clause. They should also contact their insurance agent, carrier or the SMS with any questions.

Types of policies. Two basic types of policies are available in Wisconsin, occurrence and claims-made.

Occurrence policies cover all claims resulting from professional services rendered during the term of the policy regardless of when the suit is initiated.

Claims-made policies cover claims only if the policy was in effect at the time the services were rendered, and the policy was in effect at the time the suit was initiated.

SMS recommendation. The Physicians Insurance Company of Wisconsin, which provides claims-made coverage, is endorsed by the SMS. The SMS supports the continuous operation of the Wisconsin Health Care Liability Insurance Plan (WHCLIP), a state-run occurrence program to meet the diverse needs of the SMS membership.

Limits and amounts of coverage. Wisconsin law requires all physicians, except government employees, to carry liability insurance coverage, or post a surety bond, of $400,000 per occurrence and $1 million per year as of July 1, 1988. The Patients Compensation Fund pays any portion of an award in excess of these limits.

SMS recommendation. Physicians are urged to comply with the Wisconsin statutory requirements for primary insurance coverage, and to review their policies to verify July 1, 1988, coverage requirements.

Rights and responsibilities

Provided that the insured physician complies with the terms of the policy,

the insurer is obligated to defend and pay damages on behalf of the insured in the event of a claim.

One of the most important responsibilities of the physician is to notify the insurance carrier on a timely basis of any claim made against the insured or of any incident likely to result in a claim. Some policies set a given number of days within which the physician must notify the carrier, while others use such terms as "as soon as practicable," "as soon as possible," "within a reasonable time," etc.

In the event of a claim or incident, the following information should be provided: name of insured, date and place of incident, circumstances of injury, name and address of injured party and any witnesses. The carrier will then notify the physician of any additional information which may be needed.

Physicians have both a right and responsibility to assist in the defense of a claim. The degree of participation granted to or required of the physician will vary from case to case and from one insurer to another. Likewise, the desire to participate will vary among physicians.

Revisions to the state's medical malpractice laws in 1986 replaced the Patients Compensation Panel system with a mandatory, non-binding mediation system. Anyone filing a malpractice claim after Sept 1, 1986, must first participate in a mediation process, and the physician against whom the claim is filed must attend or be represented by counsel. The new law prohibits formal discovery from taking place until after mediation and bars either party from bringing expert witnesses or expert testimony into the mediation process. The mediators, however, may consult with experts.

SMS recommendation. Physicians should become involved in the development of the defense.

What a physician can expect

Outlined below is what the SMS believes physicians can reasonably expect in their relationships with their carriers.

Competent defense counsel. WHCLIP will, in most instances, honor physician requests that a particular defense attorney be appointed. While commercial carriers do not afford this opportunity, the physician can and should request a replacement if dissatisfied with the defense being provided.

Effective communication between the physician and defense attorney is essential to a successful defense. It is critical that the physician and the defense attorney work together to formulate a strong defense. Although defense attorneys are retained by the insurance carriers, the attorneys owe their first allegiance to the insured physicians.

Participation in formulating the defense

The physician is entitled to:

- an initial conference to discuss the allegations and adjudication process;
- participate in the mediation process, with or without counsel;
- an explanation of the discovery process (through which the opposing party's case is explored) and a tentative timetable or completion of discovery and development of the defense;
- review all depositions, learned treatises, etc, obtained by counsel;
- participate in the selection of expert witnesses and exhibits;
- copies of all correspondence between defense counsel and other interested parties (carrier, claimant, witnesses, etc); and
- full disclosure of the progress of all settlement negotiations.

The SMS believes that most carriers and defense attorneys will welcome this type of participation. If, however, physicians feel they are not being allowed adequate participation, they should discuss this with their assigned defense attorney. If their concerns are not allayed, they should contact their carrier. If still dissatisfied, they should contact the SMS.

Other considerations

Under Wisconsin law, physicians *do not* have the right to veto settlements agreed upon by the carrier and claimant. Therefore, it is extremely important that physicians keep abreast of the development of their defenses. A strong defense will lessen the carriers' inclination to settle, while a lax defense may prompt a settlement (regardless of their guilt or innocence).

Even though physicians have no legal right to veto actions of the carrier, there is an ethical obligation upon the carrier and its attorney to provide physicians with an explanation of the carrier's decisions regarding settlements and appeals. Physicians should request that their defense attorney advise them on these matters prior to their being made final. Generally, the carrier will base such decisions on the advice of defense counsel.

Physicians are also entitled to prompt information about new developments in their cases, final settlements or awards, appeals, and other aspects of the defense of their cases. This again illustrates the importance of their continuing communication with defense attorneys and their regular communications with physicians. Physicians can best affect defense or settlement decisions through their defense attorneys.

SMS recommendation. Physicians should become familiar with the terms of their medical liability insurance policies, notify their carriers promptly in the event of a suit and assert their right to participate fully in their defenses.

For more information contact the SMS Division of Medical Policy and Practice.

Wisconsin's medical mediation panels

Randy F. Sproule, administrator
Medical Mediation Panels

Statutory Background

The Medical Mediation Panels were created in 1986. With few exceptions, the statute requires all parties to a medical malpractice action to participate in informal, non-binding mediation either prior to or immediately after the commencement of a circuit court action. The mediation system was established under §655.42(1) to provide "an informal, inexpensive and expedient means for resolving disputes without litigation." The system is funded entirely by assessments against health care providers.

The statutory format contains the following features:

- The mediation is non-binding.
- The mediation is mandatory. The claimant must file a request for mediation either prior to the commencement of a circuit court action or within 15 days after the commencement of a court action. The claimant and all respondents named in the request must participate in mediation.
- Mediation must take place within 90 days after the request for mediation is filed unless all parties stipulate to an extension.
- The mediation is informal. No physical examinations or productions of records may be ordered. No witnesses may be subpoenaed, no oaths may be administered, and no stenographic record may be made of the proceedings. Nothing said during the mediation is admissible in the court action. Formal discovery (eg, depositions) is prohibited during the mediation period.
- The mediation is conducted by a panel consisting of an attorney, a health care provider, and a public member.

Mediation Procedure

Pursuant to the guidelines promulgated by the administrator, the parties are required to submit written statements of the case in advance of the mediation session. The statements explain when and by whom the patient was being treated and the nature of the treatments. In addition, the statements discuss the alleged propriety or impropriety of the treatment and the nature and extent of the patient's damages. Finally, the statements indicate the amount, if any, for

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An Uhlemann Optical Co ad from the Wisconsin Medical Journal, 1929.

which the parties would be willing to settle the matter at that stage of the proceedings. The parties are also required to provide the administrator and all other parties with copies of the relevant medical records. The statements and medical records are sent to the panel of mediators by the administrator two weeks prior to the mediation session.

On the day of the session, the mediators convene one-half hour before the parties arrive and preliminarily discuss the issues raised in the statements of the case. Upon the arrival of the parties, the claimant, through his or her attorney, if represented by counsel, supplements the statement with a brief oral presentation of the case. The respondent follows with his or her oral presentation. The mediators often ask questions of the parties or their counsel during the presentations.

After the oral presentations the mediators meet outside the presence of the parties to discuss the merits of the case. The mediators then meet with the claimant and his or her attorney outside the presence of the respondent, followed by a meeting with the respondent and his or her attorney outside the presence of the claimant. During these ex parte meetings, which are designed to induce more openness and candor than might otherwise be present, the mediators discuss the strengths and weaknesses of the case, disclose their recommended disposition or settlement figure and ascertain the "bottom-line" settlement positions of the parties. The mediators continue shuttling back and forth between the parties for the ex parte discussions until the matter is resolved or until the parties reach an impasse, at which time the session is concluded and the mediators provide the parties with their objective evaluation of the case. The mediation session will generally last about two hours.

Unprofessional conduct

Med 10.01: Authority and purpose.
The definitions of this chapter are adopted by the medical examining board pursuant to the authority delegated §15.08(5), 227.08, and 448.40, Stats, for the purposes of ch 448, Stats.

Med 10.02: Definitions.
(1) For the purposes of these rules:

(a) "Board" means the medical examining board.

(b) "License" means any license, permit, certificate, or registration issued by the board.

(2) The term "unprofessional conduct" is defined to mean and include but not be limited to the following, or aiding or abetting the same:

(a) Violating or attempting to violate any provision or term of chapter 448 of the statutes or of any valid rule of the board.

(b) Violating or attempting to violate any term, provision, or condition of any order of the board.

(c) Knowingly making or presenting or causing to be made or presented any false, fraudulent, or gorged statement, writing, certificate, diploma, or other thing in connection with any application for license.

(d) Practicing fraud, forgery, deception, collusion, or conspiracy in connection with any examination for license.

(e) Giving, selling, buying, bartering, or attempting to give, sell, buy, or barter any license.

(f) Engaging or attempting to engage in practice under any license under any given name or surname other than that under which originally licensed or registered to practice in this or any other state. This subsection does not apply to change of name resulting from marriage, divorce, or order by a court of record.

(g) Engaging or attempting to engage in the unlawful practice of medicine and surgery, or treating the sick.

(h) Any practice or conduct which tends to constitute a danger to the health, welfare, or safety of patient or public.

(i) Practicing or attempting to practice under any license when unable to do so with reasonable skill and safety to patients.

(j) Practicing or attempting to practice under any license, beyond the scope of that license.

(k) Offering, undertaking, or agreeing to treat or cure a disease or condition by a secret means, method, device or instrumentality; or refusing to divulge to the board, upon demand, the means, method, device or instrumentality used in the treatment of a disease or condition.

(l) Representing that a manifestly incurable disease or condition can be or will be permanently cured; or that a curable disease or condition can be cured within a stated time, if such is not the fact.

(m) Knowingly making any false statement, written or oral, in practicing under any license, with fraudulent intent; or obtaining or attempting to obtain any

professional fee or compensation of any form by fraud or deceit.

(n) Willfully divulging a privileged communication or confidence entrusted by a patient or deficiencies in the character of patients observed in the course of professional attendance, unless lawfully required to do so.

(o) Engaging in uninvited, in-person solicitation of actual or potential patients who, because of their particular circumstances, are vulnerable to undue influence; or engaging in false, misleading or deceptive advertising.

(p) Administering, dispensing, prescribing, supplying, or obtaining controlled substances as defined in §161.01 (4), Stats otherwise than in the course of legitimate professional practice, or as otherwise prohibited by law.

(q) Having a license, certificate, permit, or registration granted by another state to practice medicine and surgery or treat the sick limited, restricted, suspended, or revoked, or having been subject to other disciplinary action by the licensing authority thereof.

(r) Conviction of any crime which may relate to practice under any license, or of violation of any federal or state law regulating the possession, distribution, or use of controlled substances as defined in §161.01 (4), Stats. A certified copy of a judgment of a court of record showing such conviction, within this state or without, shall be presumptive evidence thereof.

(s) Prescribing, ordering, dispensing, administering, supplying, selling, or giving any amphetamine, sympathomimetic amine drug or compound designated as a schedule II controlled substance pursuant to the provisions of ch. 161 Stats to or for any person except for the treatment of narcolepsy, or for the treatment of hyperkinesis, or for the treatment of drug induced brain dysfunction, or for the treatment of epilepsy, or for the differential diagnostic psychiatric evaluation of depression, or for the treatment of depression shown to be refractory to other therapeutic modalities, or for the clinical investigation of the effects of such drugs or compounds, in which case an investigative protocol therefore shall have been submitted to and reviewed and approved by the board before such investigation has been begun.

Physician licensure and verification

The Dept of Regulation and Licensing offers several avenues to verify the licensure of medical professionals.

Purchase of the department's current master printout of licensees (name, address, and license number) at a cost of about $60 for all licensees of the Medical Examining Board (MEB). Contact the Department's Renewal Section at 608-266-0627 for further information and for ordering.

Checking, at the physician's facility, the current registration card of all MEB licensees. That certificate, stamped "valid to Nov 1, 1989," is the physician's proof of being currently registered with the MEB.

Writing or calling the MEB office when the following is true:

- Applicant for staff privileges is not listed in the printout or directory.
- Applicant for staff privileges cannot produce a current registration card.
- Applicant is a new licensee in Wisconsin.
- A person has good reason to believe the MEB has disciplined the licensee and verification of that fact is desired.

Physicians who have been members of a hospital or clinic medical staff for a number of years will be expected to show their license renewal card to the staff every two years.

A physician experiencing no problems on a medical staff, having a current renewal card, and not listed in the *Digest of Rules and Discipline* will not show up as a problem on the department's records.

Physician re-registration

Every two years, physicians are required to re-register their license by Nov 1. As a part of this process, physicians are required to attest to their having attained 30 hours of Category 1 credit hours of the Physician's

Recognition Award of the AMA. This requirement is subject to audit by the MEB. Proof of attendance at these Category 1 programs is required.

Currently, physicians are licensed for 1988 and 1989, and will be next required to attest to CME, with notification of re-registration to be mailed in mid-September of 1989, for 1990–1991 licenses. Physicians must sign the back of the notice, and the notice should accompany the license fee. Physicians are also reminded to alert the MEB of any address changes (the post office only forwards mail for a six months). All fees associated with re-registration must be received by the MEB by Nov 1 of the year re-registration occurs.

Medical records

Standards governing medical record ownership, retention and access are the result of long-understood proprietary principles that have been defined by statutory enactments. The proprietary principles, that is, the ownership rights, understood by physicians and clinics is that medical records, whether x-ray films or patient charts, are the property of the health-care provider who created those records. Patients understand that they have a statutory right to their medical records as well as the right to control who has access to those records. In other words, physicians own the records, but the patients own and control the information on those records. Keeping this concept in mind will aid in understanding the structure and effect of the state and federal laws regulating access to health care information.

Because patients own the information on those records, patients have expectations of privacy in how those records are maintained and information on them is released. This expectation of privacy is buttressed by statutory provisions outlining medical record confidentiality that in some situations include penalties for improper release of information. It is important for medical record custodians to understand the interaction of the many state and federal laws defining medical record rights and responsibilities. This article generally defines the most prominent medical record laws and gives basic guidelines concerning office policies for retention of and access to patient medical records.

Medical record retention

Currently, there are few specific laws imposing a legal requirement for medical record retention. These requirements include:

Treatment facilities as defined by Wisconsin's Mental Health Act (Wis Stat §51.01(19) are required to retain records of individuals who receive treatment for mental illness, developmental disabilities, alcoholism, or drug dependency

- for at least seven years after treatment has been completed;
- if the patient is a minor, the later of the person becoming 19 or seven years after treatment has been completed;
- if the records are subject to a state or federal audit or relate to a legal action, until the completion of the audit or legal action (Wis Adm Code *HSS* §92.12).

Nursing homes, as defined by Wis Adm Code *HSS* 132 must retain records for at least five years following patient discharge or death. In addition, records must be destroyed in a manner that preserves confidentiality.

Fetal monitor tracings and microfilm copies under Wis Stat §146.817 must be kept five years, unless the health care provider gives that patient written notice 35 days prior to deleting or destroying any part of the patient's fetal monitor tracings. This retention requirement does not apply if the tracings are preserved on microfilm, although the same notification requirements apply to destruction of the microfilm copy.

Medicare and Medicaid records must be kept for five years, or six years in the case of rural health clinics. This period begins on the date the provider receives payment for the services to which the record relates. Termination from the program does not release a provider from this obligation.

As for the balance of medical records, there are no requirements for record retention, although at this writing, legislative efforts are under way to create general medical record retention requirements.

Physicians and other medical record custodians should consider several factors in establishing record retention policies. These factors include patient care

continuity and quality, documenting medical care rendered in a physician's or clinic's defense against claims by patients or others that make an issue of the care provided by the physician or other health-care personnel, assisting patients in seeking reimbursement or compensation, and assisting the physician or clinic's bill collecting efforts concerning services documented in the medical records, or, in the converse, defending the physician or clinic should those services and bills for such become the subject of an audit.

Recommendations

In the past, the SMS has recommended that medical records generally be retained for at least six years. This recommendation was based upon the statute of limitations, that is, the time in which a plaintiff can file a claim in civil court, for medical malpractice and contract claims. Over the past several years, courts have eroded the certainty provided by the statutory limits and therefore require any advice on record retention to carry additional caveats. As a result, this section will provide an outline of medical malpractice statute of limitations with the idea that physicians and clinics should determine, based upon the type of patients and care provided, whether more conservative record retention guidelines need to be adopted.

Statutory provisions

The sane adult plaintiff. In the most basic terms, the medical malpractice statute of limitations as provided by Wis Stat §893.55 requires an adult, sane plaintiff to bring an action to recover damages for injuries within the later of:

- three years from the date of the injury; or
- one year from the date the injury was discovered, or in the exercise of reasonable diligence should have been discovered, but no more than five years from the date of the act or omission; or
- if a health care provider conceals from a patient a prior act or omission which has resulted in injury to the patient, within one year from the date the patient discovers or in the exercise of reasonable diligence should have discovered the concealment; or
- when a foreign object without any therapeutic or diagnostic purpose or effect has been left in a patient's body, within one year after the patient is aware or in the exercise of reasonable care, should have been aware of the presence of the object.

The statute leaves the time open concerning those instances where a patient alleges concealment or the discovery of a non-therapeutic foreign object, with the limit for the patient to exercise "reasonable diligence" or "reasonable care" in discovering this injurious condition. As a consequence, in these specific cases where the claim is more than five years old, the defendant would need to argue that the plaintiff did not exercise reasonable diligence or care in discovering this injury to have the claim dismissed as being outside the statute of limitations.

The adult, insane or imprisoned plaintiff. As a necessary cross reference to Wis Stat §893.55, Wis Stat 893.16 provides an extension for bringing a claim to adults under disability because of insanity or imprisonment for a criminal charge. This disability must have existed at the time injury occurred or claim arises. Under this statute, the plaintiff is given two years to bring a claim after the disability ceases, but no more than a total of five years extension for this disability. This extension is in addition to the above outlined time for adult plaintiffs to bring a claim for relief. In the simplest case, that is, an alleged injury that fits the first provision for sane adult plaintiffs (see above), the disabled adult has up to eight years to bring a claim—three years plus five years extension for the disability.

The minor plaintiff not under other disability. Actions brought by minors, defined by law as individuals under age 18, are governed by Wis Stat §893.56. This statute states that minors not under disability by reason of insanity, developmental disability or imprisonment shall bring an action within the later of:

- the time limitation under Wis Stat §893.55; or
- by the time that person reaches the age of 10 years.

Under either provision, the minor's parent, guardian, or other person having custody of the minor brings the action against the health-care provider.

The minor plaintiff under other disability. Wis Stat 893.16, as previously discussed, extends the time for persons under disability at the time the action accrues to two years after recovery or a maximum of five years. This statute explicitly exempts minority as a disability for the purposes of medical malpractice claims. This provision, however, would apply to minors under other disability such as insanity or imprisonment. The question has arisen in other contexts whether developmental disability would come under this section as insanity and therefore limit a developmentally disabled child's ability to bring a claim (through a parent, guardian, or other legally authorized representative) to a maximum five years after the expiration of the time limits of Wis Stat §893.56. If developmental disability is not considered a disability as referred to in Wis Stat §893.16, there would appear to be no statute of limitation that would apply to the situation involving a developmentally disabled minor plaintiff.

Court made extensions. One Wisconsin Supreme Court decision concerned the issue of when a medical mal-

practice claim accrues where successive actors have participated in a "continuum" of allegedly negligent treatment (*Robinson* v *Mt Sinai Hospital*). The Court expanded the statutory time limit for the plaintiff to file a malpractice claim to reach otherwise "safe" defendants based on the last medical treatment date in a series of treatments by different health care providers. This ruling means that physicians who are involved at the onset in the treatment of a patient for a condition that later becomes the subject of a medical malpractice claim can be brought into a malpractice suit even though the statute of limitations has otherwise expired if this treatment was part of a continuum of negligent treatment. A continuum is defined as a grouping of facts falling into a single unit or occurrence as a lay person would view them. The Court did specify that this continuum must be that of negligent treatment. The continuum of negligent treatment, however, does permit a plaintiff to include defendants who acted independently of one another and not just defendants who "acted in concert" or jointly.

Another case involved a more limited situation where a plaintiff allegedly suffered injury from the negligent act of a physician but did not discover this injury (sterility) until 20 years later (*Kohnke* v *St Paul Fire & Marine*). The Wisconsin Supreme Court decided that since the discovery rule in the current law was not available to this plaintiff (because the alleged negligent act occurred before enactment of the current law), the plaintiff had one year after discovering the injury even though that injury occurred more than 20 years ago. As a result, malpractice claims can be brought by patients against a physician if the plaintiff alleges

Continued on next page

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that the injury occurred before 1980, but was not discovered until recently.

In summary, physicians, clinics, and medical record custodians must take into consideration a multitude of factors in determining the most prudent record retention policy. Among those factors are basic concerns for the quality and continuity of patient care, space limitations, the need for retaining certain records based on medical liability concerns, and specific requirements codified by law. The previous discussion is intended to provide the most prominent legal parameters to guide this policy decision.

Medical record inspection

As stated previously in this article, patients have certain legally codified privacy rights concerning their medical records and information contained thereon. In conjunction with these confidentiality provisions, the patient's right to the medical record information is pronounced by these laws. The most general of the confidentiality and access laws are Wis Stats §146.81 through §146.83. These statutes govern health-care records in possession of Wisconsin health-care providers—that is, they apply as to where the records are located, not necessarily by whom or for whom the records are generated.

AUTHORIZATION. Wis Stat §146.82 states that patient health-care records may be released only to the persons so designated or to other persons with the informed consent of the patient or of a person authorized by the patient. In the following section, §146.83, the manner in which a patient authorizes release of health-care records is defined. Health care providers are directed to not only document each request to inspect records by authorized persons, but to provide each patient with a statement paraphrasing this section of the statutes either upon admission to an inpatient facility, or upon first provision of services by the health-care provider.

An issue that immediately emerges from this authorization process is who is authorized to release information and what is informed consent? Both these questions are answered, in part, by Wis Stat §146.81 definitions. Informed consent requires that the patient or person authorized by the patient sign a written consent to disclose information to specific individuals, agencies, or organizations, along with the purpose for the disclosure, type of information to be disclosed, the date the consent is given, and the time period during which the consent is effective. The term "persons authorized by the patient" is also defined and includes the parent, guardian or legal custodian of a minor patient, the guardian of a patient adjudged to be incompetent, the personal representative or spouse of a deceased patient, or any person authorized in writing by the patient. Authorized persons can be extended to include others for the purposes of certain situations where there might not otherwise be a provision for record release.

Another important definition in Wis Stat §146.81 "Definitions" concerns "health-care record" which is virtually all inclusive. It should be noted that health-care records for the purposes of patient access and confidentiality are not limited to those records prepared by the health-care provider who has custody or possession of the records. Although many physician office and clinic policies restrict patient access to those records prepared by the physician or clinic health-care providers, there is no such limitation in the medical records law. Therefore, health-care records in the physician or clinic's possession that were not prepared by them are subject to this law so that confidentiality and, more importantly, patient access provisions do still apply. In other words, health care providers are not prohibited from re-releasing medical records, if properly authorized to do so, even though those records were not originally generated by them or under their supervision. The only exception noted in this statute concerns mental health records, which will be specifically addressed later in this article.

Exceptions to authorization. Wis Stat §146.82(2) allows access to patient health-care records by specified individuals or entities under specified circumstances. Most health-care providers are familiar with these exceptions and they are included in the statutory sections provided in this article. It bears mentioning that health-care providers need not respond to subpoenas, unless those subpoenas are issued by a court of law. In addition, in specific circumstances, patients waive record confidentiality such as when a patient files a claim for worker's compensation or commences or is involved in an action in civil court and the medical records contain information related to the patient's claim or defense. In any situation where the physician, clinic, or records custodian is uncertain whether a request is valid, the requester should be asked to reasonably demonstrate the validity of the request.

Re-disclosure is limited under specific instances where a patient has not authorized release of information. This prohibition means that an entity that receives information through one of the many exceptions in the "access without informed consent" section of Wis Stat §146.82 may not release this information unless authorized by a court of record.

Exceptions to Wis Stats §146.81 through §146.83. Under other laws, the access to certain medical information is more restrictive and often carry penalties for inappropriate release of information. Two important exceptions concern information involving the treatment of mental illness, developmental disability, alcohol or drug

dependency and HIV test results. More thorough discussions of the HIV testing and test disclosure laws appear elsewhere in this volume: suffice it to say here that health-care providers can face penalties for improper release of HIV test results.

Mental health records, which, for the sake of brevity, will for discussion purposes include records involving treatment for developmental disabilities, alcohol or drug dependency, are governed by additional laws that are more restrictive. The Mental Health Act, Chapter 51 of the Wisconsin Statutes, controls release and patient access to records of health-care providers providing services in treatment facilities or to the Dept of Health and Social Services. Treatment facilities includes private practitioners practicing in professional associations or service corporations, but does not include practitioners in individual private practice. Although Wis Stat §51.30 concerning record release might not apply to private practitioners, federal law, Public Law 93-282, will apply to records concerning the identity, diagnosis, prognosis, or treatment of any patient which are maintained in connection with the performance of any alcohol or drug abuse treatment function.

Exceptions concerning minor patients. Most health-care providers are aware of the circumstances under which a minor may seek treatment without parental consent. These exceptions are listed in this volume and include, at this writing, treatment for a sexually transmitted disease, alcohol or drug dependency (age 14 and older), and abortion. In addition, minors can be emancipated and therefore legally responsible to consent for treatment. In these instances, physicians and clinics should be aware that parents do not necessarily have the legal authority to inspect or authorize release of medical information concerning these excepted medical treatments. Specifically, the mental health laws do not permit parents to be contacted for consent to release information without the minor's consent in the case where a minor has sought treatment for alcohol or drug dependency.

EXTENT OF INSPECTION. Wis Stat §146.83 describes patients access to their health-care records by stating that with several exceptions, patients have a right to inspect or receive copies of their health care records. Concerning access, patients may inspect their health-care records at any time during regular business hours upon reasonable notice. Patients may also obtain copies of medical records (including x-rays) upon payment of reasonable costs. "Reasonable costs" is not defined by the statutes, leaving to the discretion of physicians or clinics to determine what is reasonable. The SMS does not provide advice on specific charges, rather advises physicians to arrive at a fair figure based upon their costs in providing copies of medical records. This figure may reflect other costs involved in copying such as staff time in obtaining and copying records. At no time should a physician or clinic allow the patient to take original records from the premises unless the physician or clinic is prepared to take the chance that the patient will not return the record.

Continued on next page

Charging for medical records

The Wisconsin Division of Industry, Labor and Human Relations has received inquiries on its position regarding reimbursement to the medical providers—especially physicians and chiropractors, for preparing and filing requested reports. The position of the division has not changed over the years as it applies to the following:

- Initial, interim and final reports: no additional charge.
- WC-16B reports: no additional charge.
- When special detailed reports requiring time or research are required by the regulations, the insurance carrier, the injured employee or their counsel, a reasonable charge for their preparation and filing is appropriate.

If you are in doubt about charging for medical reports or the reimbursement of them, please feel free to contact the Worker's Compensation Division, 201 E Washington Ave, Room 161, Madison, WI 53707 or call 608-266-1340.

Remember, if all parties involved with a claim cooperate, the likelihood of litigation can be minimized, the total cost of the claim can be reduced, and the injured employee will be able to return to the work force sooner.

Patient health-care records. As stated previously in this article, the scope of materials considered "patient health care records" is broad under Wis Stat §146.81. This section defines records to include virtually all records prepared by a health-care provider that concern the patient's health. It is reasonable to conclude that this definition would include letters prepared by other health-care providers regarding the patient's condition or treatment, x-rays, reports, and other materials in whatever form they might appear that relate to the patient's health. If a physician or clinic wishes to keep a record concerning patients that reflects problems encountered by the physician or other staff with this patient (ie, harassing telephone calls, threats of litigation), it is permissible and reasonable to keep a record that is separate from the health-care record. Patients would not be entitled to access to and copies of this non-patient health-care record.

Summary

Medical record inspection and retention are regulated by a network of state and federal laws that apply generally and specifically depending upon the type of patient, treatment, and circumstances surrounding the physician-patient relationship. Access to patient health-care records by persons and entities other than the patient is also recognized and defined by these laws. Physicians and clinics are best served by preparing medical record policies to guide the records custodians who must on a daily basis determine whether record release is appropriate. In determining whether to keep records, physicians and clinics should consider the possible consequences of destroying records with respect to patient care, bill collection, and documentation if medical treatment or charges for medical treatment become subject to review or audit.

Consent and related forms

The forms referred to in this article are those most commonly used by physicians. **Sample copies of the forms applicable to the circumstances described below may be obtained from the SMS. These forms will frequently need to be adapted for particular circumstances.** Each physician should review them carefully before using them to make sure that they reflect the realities of a given situation.

The forms listed here do not cover every possible situation in which consent should be obtained. Additional forms are contained in the AMA's *Medicolegal Forms with Legal Analysis, 1979.* It is advisable to seek legal counsel if forms other than those referred to in this article are to be used.

Finally, the forms do not cover those procedures which are normally done in a hospital. The Wisconsin Hospital Association has a publication entitled *Consent Manual, 1981.* All member hospitals of that Association have the manual. Those forms cover hospital situations, whereas this article is concerned primarily with the physician in his or her regular practice.

Access to medical records

A notice which explains to patients the law requiring all physicians and hospitals to advise their patients of the patient's right of access to their medical record, is available to Society members for posting in their offices at a place easily seen by all patients. Patients may receive information from their record upon completion of an informed consent release form.

Write to the State Medical Society of Wisconsin, Director of Communications, PO Box 1109, Madison, WI 53701; or call 257-6781 (Madison area) or 1-800-362-9080 (outside Madison area).

What is consent?

Consent, in this context, means permission from a patient or patient's legal representative to a physician to diagnose and treat the patient.

Informed consent. To be legally valid, consent must be given by the appropriate person, and this consent must be given with the appropriate understanding of the nature of the treatment and risks associated with it. This has been the law for many years, and the courts have held physicians liable for treatment without proper consent, even when the treatment worked and the results were good. Treatment without consent is actionable and is the easiest form of suit against a physician because no expert testimony or evidence is needed. Historically, the burden has been on physicians to prove that they proceeded only with proper patient consent.

Under Wisconsin law, physicians must disclose to those giving consent the information they need to make an intelligent decision under the circumstances. This information must be

given in terms that are clear to the person giving consent, but need not include matters already known to the person or risks which are extremely remote possibilities.

In addition, recent Wisconsin statutes and administrative rules require that the patient be informed about available alternative methods of treatment. The law is as follows:

> Chapter 375, Laws of 1981
> An act to amend 448.02(3) (intro) and 448.40; and to create 448.30 of the statutes, relating to requiring physicians to inform their patients of alternate modes of treatment, granting rule-making authority and creating a penalty.
>
> 448.02(3) Investigation; hearing; action. (intro) The board shall investigate allegations of unprofessional conduct by persons holding a license or certificate granted by the board. A finding by a panel established under §655.02 or by a court that a physician has acted negligently is an allegation of unprofessional conduct. An allegation that a physician has violated §448.30 is an allegation of unprofessional conduct. After the investigation, if the board finds that there is probable cause to believe that the person is guilty of unprofessional conduct, the board shall hold a hearing on such conduct, warn or reprimand that person, or limit, suspend or revoke any license or certificate granted by the board to that person. The board shall comply with rules of procedure for such investigation, hearing and action promulgated under §440.03(1).
>
> 448.30 Information on alternate modes of treatment. Any physician who treats a patient shall inform the patient about the availability of all alternate, viable medical modes of treatment and about the benefits and risks of these treatments. The physician's duty to inform the patient under this section does not require disclosure of:
>
> (1) Information beyond what a reasonably well qualified physician in a similar medical classification would know.
>
> (2) Detailed technical information that in all probability a patient would not understand.
>
> (3) Risks apparent or known to the patient.
>
> (4) Extremely remote possibilities that might falsely or detrimentally alarm the patient.
>
> (5) Information in emergencies where failure to provide treatment would be more harmful to the patient than treatment.
>
> (6)Information in cases where the patient is incapable of consenting.

Most forms do not provide for a full description of the disclosures given, either as to treatment or risks involved. Physicians should make some provision in their patients' records to indicate specifically what disclosure were made. Some physicians tape record their disclosures and retain these tapes with the patients' records. Some who are frequently involved in the same procedure use prepared statements covering the treatment and its risks and obtain receipts for copies of this information. Some give disclosures in front of witnesses and have their notes on the matters disclosed initialed or countersigned by the witnesses. For legal protection, physicians should have some record of the matters disclosed in each situation.

Implied consent. There are situations where the consent of the patient does not have to be in writing or even verbally expressed. This is implied consent.

A classic example of implied consent is the unconscious victim of an automobile accident where immediate action must be taken to save the life of the patient, or at least minimize the effect of injuries. In this emergency, consent is implied.

Who can consent?

Persons who are adults and competent to understand what the physician is proposing to do, why it is necessary or desirable, and what the risks of doing it are going to be, can give a consent.

Minors. In Wisconsin, persons under the age of 18 are minors. The proper person to consent to surgery or other treatment of a minor is either parent or, if neither parent is living, the minor's court-appointed guardian. A physician is not legally protected by a consent signed by a relative of a minor, other than a parent, unless the relative has been appointed as the minor's legal guardian by a court.

There are two exceptions to the above general rule. First, in an emergency, consent is not necessary if the parents or guardian cannot be located, and—in the judgment of the physician in charge and of consultants where consultation is practical—immediate treatment is necessary to save the life of, or to prevent the deterioration or aggravation of the condition of, the patient.

Second, an emancipated minor can give a consent for medical treatment, including surgery.

Incompetents. Physicians, above all others, are qualified to determine whether a person is competent to sign a consent. If a patient is incompetent, a consent by the patient will not be any protection. For incompetents other than minors, consent can only be given by the person's legally appointed guardian, except in emergencies. Courts in Wisconsin have very limited powers to substitute their discretion for that of a person's legally appointed guardian.

Persons under the influence of drugs or intoxicants.

Unless there is an emergency, the

physician should either wait until the influence of the drug or intoxicant passes or make appropriate contacts for the appointment of a guardian. In the case of an emergency, treatment necessary to save life can be given.

Why obtain consent?

In Wisconsin, failure to obtain informed consent for medical treatment is the negligent violation of a legal duty. Physicians may be sued for a species of malpractice. In an action for failure of informed consent, the patient has the responsibility for proving failure of disclosure by the physician, lack of knowledge by the patient of the nature of the treatment and its risks, and the adverse effects of the treatment. The physician's defense usually rests on providing reasons for not giving disclosure, usually based on the so-called reasonable person rule. No expert testimony is required to assist the jury in determining whether the failure of disclosure led to consent to the treatment or, phrased another way, whether adequate disclosure would have resulted in the patient's refusing the treatment.

Limits on consent

A valid consent cannot be a general consent for physicians to do anything they want to do. Consent should be limited to the specific situation presented by the diagnosis of the patient's illness. Finally, a consent is not effective if the treatment or procedure consented to is illegal, is contrary to public policy, or is given by a person who had no legal right to give it.

Consent and related forms

The suggestions that follow are related to forms available from the SMS.

Contract for services. The physician-patient contract is established when the physician, in response to an express or implied request to treat the patient, undertakes to render professional services. It is not necessary to have a formal written contract. The contract between the patient and physician is implied and is enforceable. If you wish, you may restrict your services to one procedure or to one or more treatments at a particular time or place. This can be done by a letter requesting the patient to sign and return a copy to you. A physician need not accept every person who wishes services, and specialists need not accept patients who have illnesses outside their specialty.

Once the patient-physician relationship has been entered into, however, the physician is under an obligation to treat the patient until the relationship is terminated.

Termination of contract. Care must be taken to inform the patient appropriately, but unmistakably, when the patient-physician relationship is terminated. What should be done depends upon how the situation arises.

- Former patient

If you have a former patient who calls and wishes further services and you do not wish to further treat that patient, you should make your decision clear. Following such conversation you should confirm it by a letter.

- Withdrawal from a case

There may be occasions when a physician does not wish to continue on a case. Consistent with legal and ethical principles, you must find appropriate steps to withdraw. You cannot just stay away without notifying the patient. This would be abandoning the patient and could subject you to a suit for damages.

You must give the patient proper notice that you are withdrawing from the case and must give the patient a reasonable amount of time to obtain a new physician. What is a reasonable amount of time will depend upon the circumstances of the case and the availability of other physicians in the area. The SMS suggests that, under most circumstances, the time should be not less than five days. To provide a record and protect the physician, a letter should be sent to the patient. If the letter is sent by certified mail with a return receipt requested, you will have a record in your file showing not only that the patient was notified, but also the date the patient received the notification.

- Discharge of a physician

The patient may also terminate the contract by discharging the physician. You will want to make an immediate and adequate record that you did not abandon the patient. The physician may do well to try to obtain from the patient a signed statement of the facts and discharge of the physician. Where this is not available the SMS suggests that you send a letter to the patient by certified mail, with a return receipt requested, so that your file will show receipt of the letter by the patient.

- Special problems during treatment

Many problems may arise during

SMS President William L. Treacy, MD, begins his term in office with a press conference.

The music of fond memories was not the only melody at this year's 50 Year Club banquet.

the treatment of a patient. Those covered in this section are of particular importance to the physician since, if no protective steps are taken and a record made of such steps, the defense against allegations of malpractice could be made considerably harder and more expensive.

a) Patient fails to follow advice.

When a physician feels that a certain treatment or procedure should be performed and the patient refuses, a record should be made.

b) Patient fails to keep appointment.

If a patient fails to keep an appointment when the patient has a condition the physician knows needs treatment, the physician should make this fact known to the patient in writing. See that your records reflect your professional advice to the patient.

c) Patient leaves the hospital against medical advice.

Patients sometimes refuse to remain in a hospital even though their physician feels that continued hospitalization is necessary. You should have two witnesses when you tell the patient why you think continued hospitalization is needed. These witnesses should sign the appropriate form, regardless of whether the patient signs the form. If the patient refuses to sign, it be noted on the form. You should have a copy of the form for your office records. The hospital will also want a copy for its records.

d) Physician is substituted in obstetrical cases.

It is not unusual for a physician to be unable to be present at a delivery. You should explain this to your obstetrical patient when she first comes to your office. You should have the expectant mother sign a form as an acknowledgment that she understands and agrees.

e) Patient is treated in the office.

When you decide to perform the procedure in your office rather than in the hospital, inform the patient of the alternatives and any special risks involved. If the patient decides that the procedure should be performed in the hospital, do not attempt the procedure in your office. If the patient agrees to an office procedure, have the patient sign a consent form.

- Confidential and privileged relationship

In Wisconsin, communications between a patient and physician are protected both by law and ethics.

Under Wisconsin law, certain disclosures made by a patient to a physician to give the physician information sufficient to undertake diagnosis and treatment are privileged; the statements cannot be disclosed by the physician unless the patient allows or unless the physician is allowed or required by law. The privilege is that of the patient and can ordinarily be claimed or released only by the patient.

Confidential communications engage a physician's ethical duty to keep secret the information obtained about a patient while acting in a professional capacity. This obligation is independent of the privilege discussed in the preceding paragraph. It is binding at all times.

Wisconsin statutes permit an employee or the employee's designated representative to inspect personal medical records concerning the employee contained in the employer's file. If the employer believes that disclosure of an employee's medical records would have a detrimental effect on the employee, the employer may release the medical records to the employee's physician or through a physician designated by the employee, in which case the physician may release the medical records to the employee's immediate family.

Unauthorized disclosure of confidential information can be grounds for revocation of the physician's license. It may also be the basis for a suit for damages by the patient.

a) Release of patient health-care records.

By case law and statute, a patient's health-care records (all records related to the health of a patient, prepared by or under the supervision of a health care provider) may ordinarily only be released on the authorization of the patient or one legally permitted to act for the patient. Wis Stats §446.81(2) defines *informed consent* with respect to the disclosure of information from a patient as written consent "containing the name of the patient whose record is being disclosed, the purpose of the disclosure, the type of information to be disclosed, the individual, agency or organization to which disclosure may be made, the type of health care providers making the disclosure, the signature of the patient or the person authorized by the patient, the date on which the consent is signed and the time period during which the consent is effective."

Access without informed consent. Release of medical records without patient authorization, unless specifically permitted by law, is a breach of confidentiality and may subject the physician to a lawsuit. The law permits the release of patient health-care records upon request without informed consent in the following circumstances:

- to staff, accreditation or review committees;
- for performance of health care services to persons providing such services (including emergency care) or being consulted in regard to such services;
- for billing, collection, and payment of claims;
- under court order;
- on written request from an appropriate government agency; and
- for research purposes under specific conditions.

Patient access to health care records. Any patient or other person may, upon submitting a statement of informed consent, inspect the patient's records during regular business hours upon reasonable notice, receive a copy of the patient's records on payment of reasonable costs, or receive a copy of the patient's x-ray reports or have the patient's x-ray films referred to the provider of choice for analysis upon payment of reasonable costs (Wis Stats §146.83).

b) Photographs. Physicians may wish to make a visual record of a case for several reasons. There must be a release of the confidential or privileged relationship to allow the taking of photographs.

c) Observers, motion pictures, television. There are cases which should be observed, televised or recorded on film. The release of the confidential or privileged relationship must also be obtained in these cases.

Special situations

Prudence dictates that certain procedures receive extra precaution, documentation and consent. These include abortions, artificial insemination (homologous and donor), and sterilization (therapeutic, non-therapeutic, and as a result of an operation for other purposes).

Other consent forms

There are other forms (*Wis Med J* 1970;71(1):7–23) that may be of use to a physician. These forms are believed not to require explanatory text. Before any of these forms are signed, however, the physician should review the requirements for a valid consent given earlier in this article.

The forms below are those most commonly used by physicians. A complete discussion of their use can be found elsewhere in this issue of the *WMJ*. Sample copies of these forms may obtained from the *WMJ*. Form numbers and titles are listed below for easy reference when making a request. These forms will frequently need to be adapted for a particular situation. Each physician should read them carefully before using them to make sure that they reflect the realities of a given set of circumstances.

1: Letter to former patient where physician does not wish to treat later illness.
2: Authorization to disclose information to new physician.
3: Letter of withdrawal from case.
4: Letter to confirm discharge by patient.
5: Letter to patient who fails to follow advice.
6: Letter to patient who fails to keep appointment.
7: Statement of patient leaving hospital against medical advice.
8: Provision for substitute physician at delivery.
9: Consent to office treatment.
10: Consent to examination of physician's records.
11: Consent to taking of photographs.
12: Consent to publication of photographs.
13: Authority to admit observers.
14: Consent to taking of motion pictures of operation.
15: Consent to televising of operation.
16: Statement of need for therapeutic abortion.
17: Authorization to treat condition of recent or partial abortion.
18: Artificial insemination homologous consent.
19: Aid consent.
20: Aid donor consent.
21: Aid donor's wife consent.
22: Consent to sterilization as a result of operation.
23: Consent to therapeutic sterilization.
24: Consent to non-therapeutic sterilization.
25: General consent to operation.
26: Consent to operation.
27: Consent to operation for cosmetic purposes.
28: Consent to removal of tissue for grafting.
29: Consent to operation and grafting of tissue.
30: Order for taking x-ray films.
31: Consent to x-ray therapy.
32: Permission to use radioisotopes.
33: Consent to diagnostic procedure.
34: Agreement for blood transfusion.
35: Agreement for blood plasma transfusion.
36: Agreement with blood donor.
37: Release and receipt (blood donor).
38: Agreement with blood donor.
39: Release and receipt (blood donor).
40: Consent to disposal of amputated part of organ.
41: Gift of part of body under Wisconsin Uniform Anatomical Gift Act of 1969.
42: Authorization for tissue donation.
43: Authorization for autopsy and tissue donation.
44: Authorization for autopsy.
45: Consent to disposal of body.

Important definitions regarding consent law

146.81 Definitions.
In §146.81 to §146.83(1) *Health care provider* means a nurse registered or licensed under ch 441, a chiropractor licensed under ch 446, a dentist licensed under ch 447, a physician, podiatrist or physical therapist under ch 448, an optometrist licensed under ch 449, a psychologist licensed under ch 455, a partnership thereof, a corporation thereof that provides health care services, an operational cooperative sickness care plan organized under §185.981 to §185.985 that directly provides services through salaried employees in its own facility, or an inpatient health care facility as defined in §140.85(1).

(2) *Informed consent* means written consent to the disclosure of information from patient health-care records to an individual, agency or organization containing the name of the patient whose record is being disclosed, the purpose of the disclosure, the type of information to be disclosed, the individual, agency or organization to which disclosure may be made, the types of health-care providers making the disclosure, the signature of the patient or the person authorized by the patient, the date on which the consent is signed and the time period during which the consent is effective.

(3) *Patient* means a person who receives health-care services from a health-care provider.

(4) *Patient health-care records* means all records related to the health of a patient prepared by or under the supervision of a health-care provider, but not those records subject to §51.30.

(5) *Person authorized by the patient* means the parent, guardian or legal custodian of a minor patient, as defined in §48.02(9) and (11), the guardian of a patient adjudged incompetent, as defined in §880.01(3) and (4), the personal representative or spouse of a deceased patient or any person authorized in writing by the patient. If no spouse survives a deceased patient, *person authorized by the patient* also means an adult member of the deceased patient's immediate family, as defined in §632.78 (3) (d). A court may appoint a temporary guardian for the patient believed incompetent to consent to the release of records under this section as the person authorized by the patient to decide upon the release of records, if no guardian has been appointed for the patient.

146.815 Contents of certain patient health-care records

(1) Patient health-care records maintained for hospital inpatients shall include, if obtainable, the inpatient's occupation and the industry in which the inpatient is employed at the time of admission, plus the inpatient's usual occupation.

(2)(a) If a hospital inpatient's health problems may be related to the inpatient's occupation or past occupations, the inpatient's physician shall ensure that the inpatient's health-care record contains available information from the patient or family about these occupations and any potential health hazards related to these occupations.

(b) If a hospital inpatient's problems may be related to the occupation or past occupations of the inpatient's parents, the inpatients physician shall ensure that the inpatient's health-care record contains available information from the patient or family about these occupations and any potential health hazards related to these occupations.

(3) The department shall provide forms that may be used to record information specified under sub (2) and shall provide guidelines for determining whether to prepare the occupational history required under sub (2). Nothing in this section shall be construed to require a hospital or physician to collect information required in this section from or about a patient who chooses not to divulge such information.

146.82 Confidentiality of patient health-care records

(1) *Confidentiality.* All patient health-care records shall remain confidential. Patient health-care records may be released only to the persons designated in this section or to other persons with the informed consent of the patient or of a person authorized by the patient.

(2) *Access without informed consent.* (a) Notwithstanding sub (1), patient health-care records shall be released upon request without informed consent in the following circumstances:

- To health-care facility staff committees, or accreditation or health-care services review organizations for purposes of conducting management audits, financial audits, program monitoring and evaluation, health-care services reviews or accreditation.
- To the extent that performance of their duties requires access to the records, to a health-care provider or any person acting under the supervision of a health-care provider or to a person licensed under §146.35 or §146.50, including but not limited to medical staff members, employees or persons serving in training programs or participating in volunteer programs and affiliated with the health-care provider, if:

  a) the person is rendering assistance to the patient;

  b) the person is being consulted regarding the health of the patient; or

  c) the life or health of the patient appears to be in danger and the information contained in the patient health-care records may aid the person in rendering assistance.
- To the extent that the records are needed for billing, collection or payment of claims.

- Under a lawful order of a court of record.
- In response to a written request by any federal or state governmental agency to perform a legally authorized function, including, but not limited to management audits, financial audits, program monitoring and evaluation, facility licensure or certification or individual licensure or certification. The private pay patient may deny access granted under this subdivision by annually submitting to the health-care provider a signed, written request on a form provided by the department. The provider, if a hospital or nursing home, shall submit a copy of the signed form to the patient's physician.
- For purposes of research, if the researcher is affiliated with the health-care provider and provides written assurances to the custodian of the patient health-care records that the information will be used only for the purposes for which it is provided to the researcher, the information will not be released to a person not connected with the study, and the final product of the research will not reveal information that may serve to identify the patient whose records are being released under this paragraph without the informed consent of the patient. The private pay patient may deny access granted under this subdivision by annually submitting to the health-care provider a signed, written request on a form provided by the department.
- To a county agency designated under §46.90(2) or other investigating agency under §46.90 for purposes of §46.90(4)(a) and (5). The health-care provider may release information by initiating contact with the county agency without receiving a request for release of the information from the county agency.
- To the department under §46.73. The release of a patient health-care record under this subdivision shall be limited to the information prescribed by the department under §46.73(2).
- To staff members of the protection and advocacy agency designated under §51.62(2) or to staff members of the private, nonprofit corporation with which the agency has contracted under §51.62(3)(a)3, if any, for the purpose of protecting and advocating the rights of a person with development disabilities, as defined under §51.62(1)(a), who resides in or who is receiving services from an inpatient care facility, as defined under §51.62(1)(b), except that if the patient has a guardian, information concerning the patient obtainable by staff members of the agency or nonprofit corporation with which the agency has contracted is limited to the name, birth date and county of residence of the patient, information regarding whether the patient was voluntarily admitted, involuntarily committed or protectively placed and the date and place of admission, placement or commitment, and the name and address of any guardian of the patient and the date and place of the guardian's appointment. Any staff member who wishes to obtain additional information shall notify the patient's guardian in writing of the request, and of the guardian's right to object. The staff member shall send the notice by mail to the guardian's address. If the guardian does not object in writing within 15 days after the notice is mailed, the staff member may obtain the additional information. If the guardian objects in writing within 15 days after the notice is mailed, the staff member may not obtain the additional information.
- To persons as provided under §655.17(7)(b), as created by 1985 Wisconsin Act 29, if the patient files a submission of controversy under Wis Stats §655.04(1), 1983, on or after July 20, 1985, and before June 14, 1986, for the purposes of §655.17(7)(b), as created by 1985 Wisconsin Act 29.
- To a county department, as defined under §48.02(2g), a sheriff or police department or a district attorney for purposes of investigation of threatened or suspected child abuse or neglect or prosecution of alleged

Launching a legislative tort reform effort: (left to right) Rep Du Wayne Johnsrud, Sen Marvin Roshell, Rep Mary Hubler, Rep Gary Schmidt, Rep David Deininger, Bill Smith of the National Federation of Independent Business–Wisconsin, and Thomas L. Adams, SMS secretary and general manager.

child abuse or neglect, if the person conducting the investigation or prosecution identifies the subject of the record by name. The health-care provider may release information by initiating contact with a county department, sheriff or police department or district attorney without receiving a request for release of the information. A person to whom a report of record is disclosed under this subdivision may not further disclose it, except to the persons, for the purposes and under the conditions specified in §48.981(7).

Unless authorized by a court of record, the recipient of any information under the above paragraph shall keep the information confidential and may not disclose identifying information about the patient whose patient health-care records are released.

146.83 Patient access to health-care records.

- Except as provided in §51.30 or §146.82(2), any patient or other person may, upon submitting a statement of informed consent:

  a) Inspect the health-care records of a health-care provider pertaining to that patient at any time during regular business hours, upon reasonable notice.

  b) Receive a copy of the health-care provider's X-ray reports or have the X-rays referred to another health-care provider of the patient's choice, upon payment of reasonable costs.
- The health-care provider shall provide each patient with a statement paraphrasing the provisions of this section either upon admission to an inpatient health-care facility, as defined in §140.85(1), or upon the first provision of services by the health-care provider after April 30, 1980.
- The health-care provider shall note the time and date of each request by a patient or person authorized by the patient to inspect the patient's health-care records, the name of the inspecting person, the time and date of inspection, and identify the records released for inspection.

Statute 804.10(4)

"Upon receipt of written authorization and consent signed by a person who has been the subject of medical care or treatment, or in case of the death of such person, signed by the personal representative or by the beneficiary of an insurance policy on the person's life, the physician or other person having custody of any medical or hospital records or reports concerning such care or treatment, shall forthwith permit the person designated in such authorization to inspect and copy such records and reports. Any person having custody of such records and reports who unreasonably refuses to comply with such authorization shall be liable to the party seeking the records or reports for the reasonable and necessary costs of enforcing the party's right to discover."

Wisconsin information clearinghouse

The Wisconsin Clearinghouse is a state agency the provides information on alcohol and other mood-altering drugs, primary prevention, mental health, and other health topics.

Housed at the University of Wisconsin–Madison, the agency offers publications that are suitable for patients as well as for professionals, and many are available at no cost, except for shipping and handling. A catalog listing over 30 other publications available for purchase can also be ordered. Some of the publications are produced by clearinghouse staff, while others are prepared by other organizations, such as the Wisconsin Office on Alcohol and Other Drug Abuse, the National Institute on Drug Abuse, and the Addiction Research Foundation.

In addition to pamphlets, books, professional manuals, public awareness kits and curricula, the clearinghouse offers colorful posters aimed at people of many ages and interests. Also available are video tapes on marijuana, caffeine, the dangers of chemicals, and other topics. The Wisconsin Clearinghouse staff also evaluates films and publications from other sources. Synopses, ratings, and other information on these resources are available on request.

Wisconsin Clearinghouse office hours are 8:30 AM to 4:45 PM Monday through Friday. Publications may also be ordered by mail or telephone. For more information contact the Wisconsin Clearinghouse, Dept MJ, PO Box 1468, Madison, WI 53701; telephone: 608-263-2797.

Parking privileges for the disabled

The Wisconsin Department of Transportation is required by law to supply information to all applicants for disabled or disabled veteran license plates or a special identification card for physically disabled relating to the parking privileges granted and enforcement provisions.

Parking privileges

A motor vehicle bearing special disabled or disabled veteran license plates, or upon which a special identification card is displayed, is subject to all parking laws, except for the following parking privileges:

- exemption from time limitations in parking places with ½ hour or more limit;
- not having to pay in metered stalls with ½ hour or more time limit; and
- authorized to park in places reserved for disabled persons.

Parking privileges are limited to the following:

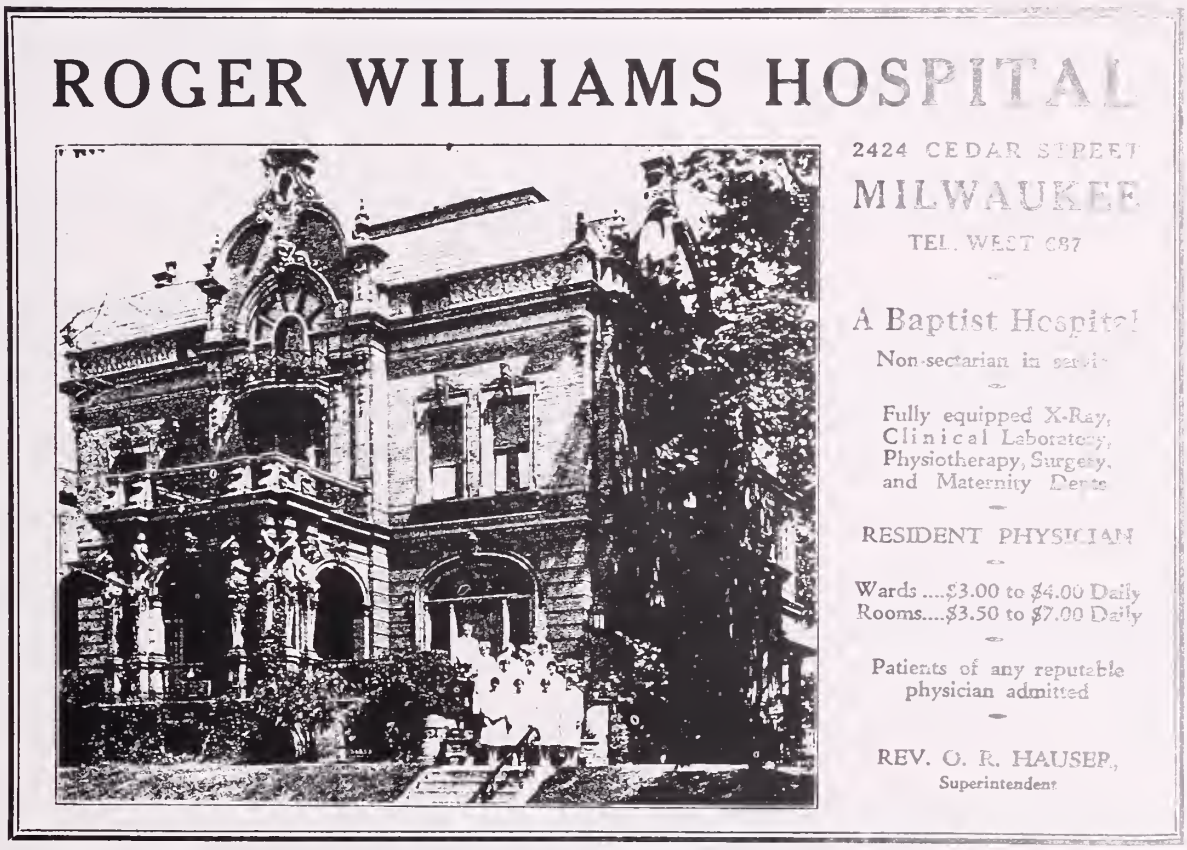
1. A person to whom disabled or disabled veteran license plates have been issued.
2. A qualified operator acting under the direction of a person to whom disabled or disabled veteran license plates have been issued when such person is present.
3. A person or organization to whom a special identification card has been issued.
4. A qualified operator acting under the direction of a person to whom a special identification card has been issued when such person is present.

Enforcement

Law enforcement officers are empowered to enforce disabled parking restrictions in public or private lots with parking stalls that indicate the restriction by official traffic signs. Any citizen or property owner may request such enforcement action. Violators may be required to forfeit not less than $30 or more than $300.

The complete statutory description related to disabled parking is available in §346.50 through §346.56, of the Wisconsin Statutes.

Additional information or clarification can be obtained by contacting the Wisconsin Department of Transportation, Special Plates Unit, PO Box 7911, Madison, WI 53707-7911; 608-266-1384.



Hospital rates were a little different 60 years ago (from the WMJ 1929).

APPLICATION FOR SPECIAL IDENTIFICATION CARD FOR PHYSICALLY DISABLED s. 343.51 Wis Stats.

MV2548 288

Instructions:

1. See qualifications and provisions on reverse.
2. Complete Section A and have your physician complete Section B or if you are a disabled veteran, you may have the U.S. Veteran's Administration complete Section B.
3. Submit this application and FEE of $4.00.
   NOTE: Fee is required for each card issued.
4. MAKE CHECK PAYABLE TO: REGISTRATION FEE TRUST
5. MAIL TO: Wisconsin Dept. of Transportation
   Special Plates Unit - ID
   P.O. Box 7911
   Madison, WI 53707-7911
6. Please type or print clearly.

FOR OFFICE USE

Card No.	Type	Date Issued	Date Expires

Check one box for type of card you are requesting.

☐ Original ☐ Replacement of Permanent
☐ Extension ☐ Replacement of Temporary

Normal processing time to issue a card is three working days from receipt of a correct application.

NOTE: IF YOU ARE A LICENSED DRIVER, THE DEPARTMENT MAY REVIEW YOUR MEDICAL CONDITION OR DISABILITY TO RE-EVALUATE YOUR LICENSING ELIGIBILITY.

A. DISABLED PERSON'S NAME			Date of Birth	Age ☐ Female ☐ Male
Address			Applicant's Service Number	V.A. Claim Number
City	State	Zip	Driver's License Number (If none - so state)	
Area Code & Telephone Number so that we may contact you if there are application problems Home: ( ) Business: ( )			Name of Person Signing for Applicant Relationship to Applicant (parent, foster parent, or legal guardian)	

Complete this information if applying for a replacement: Reason for Replacement:

☐ Lost ☐ Stolen ☐ Destroyed ☐ Mutilated or illegible ☐ Name Change ☐ Address Change ☐ Name and Address Change

If name or address has changed from that shown on original application and card issued, give:

Former Name	Former Address

A physician's or U.S. Veteran's Administration statement already on file with the Wisconsin Department of Transportation provides the necessary information which may be used to establish eligibility for special plates and identification card. Indicate the purpose for which the statement was filed, i.e., application for:

☐ disabled person's plates ☐ disabled veteran's plates

I have read the information on the reverse of this application and understand the qualifications and provisions under which a special identification card may be issued. I authorize my physician, chiropractor, Christian Science practitioner or the U.S. Veteran's Administration to supply the information requested below.

X _____
(Signature of Applicant or Person Signing for Applicant) (Date)

B. Physician or U.S. Veteran's Administration Completed Below:

This section must be completed and signed by a physician licensed to practice medicine in any state, a chiropractor licensed to practice chiropractic in any state, a Christian Science Practitioner residing in the State of Wisconsin, or by an authorized V.A. representative.

☐ TEMPORARY DISABILITY: I hereby certify that the above-named person is temporarily disabled and will not be able to get about without great difficulty until _____ (Specific Date)

☐ PERMANENT DISABILITY: I hereby certify that the above-named person is permanently disabled, so as not to be able to get about without great difficulty.

☐ The Department has a responsibility to ensure that all drivers are able to exercise reasonable control over their vehicles. Please check here if you feel the applicant's medical condition or disability impairs his/her ability to drive safely.

Please Print:

Physician's Name		
Address		
City	State	Zip
Medical License #	Area Code & Office Phone #	

X _____
(Authorized VA Representative)* (Date)

OR

X _____
(Physician's, Chiropractor's or Christian Science Practitioner's Signature) (Date)

*This statement is for issuance of special identification card and is not to be considered as a claim for VA benefits.

Section 343.51 Wisconsin Statutes provides that:

Any person who is disabled, so as not to be able to get about without great difficulty.

-- OR --

any person who is temporarily physically disabled by any physical condition which renders the person unable to walk without great difficulty,

-- MAY REQUEST --

from the Wisconsin Department of Transportation a special identification card which entitles any motor vehicle parked by, or under the direction of, such persons to parking privileges.

PARKING PRIVILEGES:

A motor vehicle upon which a speeial identification card issued under s. 343.51 Wis. Stats. is displayed, is exempt from any ordinance imposing time limitations on parking in any street or highway zone and parking lot, whether municipally owned or leased, with one-half hour or more limitation but otherwise is subject to the laws relating to parking. Where the time limitation on a metered stall is one-half hour or more, no meter payment is required.

Parking privileges are limited to the following:

1. A person to whom a special identification card was issued under s. 343.51 Wis. Stats.
2. A qualified operator acting under the express direction of a person to whom a special identification card was issued under s. 343.51 Wis. Stats. when such person is present.

A motor vehicle upon which a special identification card issued under s. 343.51 Wis. Stats. is displayed is eligible for parking in spaces posted with official traffic signs as provided in s. 346.503 Wis. Stats. and is exempt from s. 346.505 Wis Stats. or any ordinance prohibiting parking, stopping or standing upon any portion of a street, highway or parking facility reserved for handicapped persons by official traffic signs indication the restriction.

ADDITIONAL INFORMATION:

A special identification card will be issued to a disabled person only when a physician, chiropractor, Christian Science Practitioner, or an authorized. V. A. representative certifies that the person is disabled, i.e., not able to get about without great difficulty.

No person may hold more than one identification card.

Signature - A parent, foster parent, or legal guardian of an applicant (disabled person), if signing for the applicant, must show his or her relationship to the applicant.

The expiration date for a temporary identification card will be the date provided by the physician as the estimated duration of a temporary disability. To obtain an additional temporary card to extend the expiration date, a letter from the original physician stating the reason for the duration of the extended temporary disability may be accepted in place of a new application.

A fee of $4.00 is required for each issuance of an identification card. This fee applies to the issuance of an original (permanent or temporary), a replacement, or issuance of another temporary to extend the expiration date.

An identification card shall be returned to the Wisconsin Department of Transportation:

1. When a person to whom a permanent card has been issued can no longer make proper use of the card.
2. Within 10 days after a temporary card expires.
3. When applying for an extension of the expiration date of a temporary card.
4. When applying for a replacement identification card because the original card has become mutilated or illegible or the card holder's name or address has changed.
5. When an identification card that was lost or stolen is recovered after replacement card has been issued.

If applying for a replacement identification card, a physician's statement is not required.

If you have additional questions, please write to the address on the reverse or call (608) 266-1384 for assistance.

Reporting communicable diseases

The Wisconsin communicable disease rule, referred to as Chapter HSS 145, is particularly important to medical and public health professionals because it contains disease reporting responsibilities and a list of reportable diseases, adopts standards for disease prevention and control, and updates other disease control activities.

Chapter HSS 145 is organized into three subchapters: Subchapter I, General Provisions; Subchapter II, Tuberculosis; and Subchapter III, Sexually Transmitted Diseases. It requires specific disease prevention and control measures, as contained in *Control of Communicable Diseases in Man*, 14th edition (1985), published by the American Public Health Association. This manual is a familiar resource to most public health professionals and infectious disease specialists, and is updated every five years in light of new knowledge of disease mechanisms and the effectiveness of specific control measures. Physicians should use the control measures contained in this manual in the instruction of their patients. The state epidemiologist may also specify other disease control recommendations necessary for the control of a specific disease or condition.

The reporting of communicable diseases is required of physicians, nurses, laboratories, health care facilities, teachers in schools and day care centers, and any other persons knowing of the presence or suspected presence of a communicable disease.

When a diagnosis of any of the diseases listed below is suspected or confirmed, this fact must be reported (either verbally or by completing the Acute and Communicable Diseases Case Report form, DOH 4151) to the local health officer in the public health agency serving the patient's place of residence. The local health officer is required to forward all reports of communicable diseases to the state epidemiologist at the Wisconsin Division of Health, and is also responsible for coordinating the local epidemiologic follow-up of reported diseases.

A directory of city and county public health agencies in Wisconsin for reporting communicable diseases is available from the Acute and Communicable Disease Epidemiology Section, Bureau of Community Health and Prevention, Division of Health, Department of Health and Social Services, PO Box 309, Madison, WI 53701; 608-267-9003.

Copies of Chapter HSS 145 are available from the Bureau of Community Health and Prevention, Wisconsin Division of Health, PO Box 309, Madison, WI 53701; 608-267-9003. Questions regarding specific provisions of this rule may also be addressed to the above agency.

AIDS and HIV-positive antibody tests must also be reported, but under different sections of the statutes. AIDS is reportable, as a Category II communicable disease, to the local health officer and the Division of Health. Positive HIV antibody test results do not, by themselves, constitute diagnosis of AIDS, and under the law as of June 1987, positive test results must be reported to the state epidemiologist but may not be reported to the local health officer. For specific information on AIDS and HIV antibody reporting requirements see the related articles elsewhere in this issue.

Communicable diseases
Category I

The following diseases are of urgent public health importance and shall be reported by telephone to the local health officer in the public health agency serving the patient's place of residence, immediately upon identification of a case or suspected case.

Anthrax
Botulism
Botulism, infant
Cholera
Diphtheria
Hepatitis, viral Type A
Measles
Pertussis (whooping cough)
Plague
Poliomyelitis
Rabies (human)
Rubella
Rubella (congenital syndrome)
Tuberculosis
Yellow Fever

Communicable diseases
Category II

The following diseases are of less urgent public health importance and shall be reported to the local health officer in the public health agency of the person's place of residence, by individual case report form, or by telephone within 72 hours of the identification of a case or suspected case.

Acquired Immune Deficiency Syndrome (AIDS)
Amebiasis
Blastomycosis
Brucellosis
Chancroid
Chlamydia trachomatous
Campylobacter enteritis
Encephalitis, viral (specify etiology)
Genital herpes infection (first clinical episode only)
Giardiasis
Gonorrhea
Granuloma inguinale
Hepatitis, viral Types B, non-A, non-B or unspecified
Histoplasmosis
Kawasaki disease
Infant methemoglobinemia
Lead intoxication (specify Pb levels)
Legionnaires' disease
Leprosy
Leptospirosis
Lyme disease
Lymphogranuloma venereum

Continued on page 134

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MEDICAL COLLEGE OF WISCONSIN **PRN**

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Continued from page 132
Malaria
Meningitis, aseptic (specify etiology)
Meningitis, bacterial (specify etiology)
Meningococcal disease
Mumps
Non-gonococcal cervicitis
Non-gonococcal urethritis
Non-tuberculous mycobacterial disease (specify etiology)
Other metal poisonings
Other organic chemical poisonings
Pesticide poisoning
Psittacosis
Q fever
Reye's syndrome
Rheumatic fever (newly diagnosed)
Rocky mountainspotted fever
Salmonellosis
Sexually transmitted diseases
Sexually transmitted pelvic inflammatory disease
Syphilis
Shigellosis
Salmonellosis
Tetanus
Toxic-shock syndrome
Toxic substance related disease
Toxoplasmosis
Trichinosis
Tularemia
Typhoid fever
Typhus fever
Yersiniosis
Suspected outbreaks of other acute or occupationally-related diseases

Communicable diseases Category III
The total number of cases or suspected cases of chicken pox shall be reported on a weekly basis to the local health officer.

An overview of worker's compensation

This overview of the worker's compensation system in Wisconsin has been modified from a pamphlet prepared by the Worker's Compensation Division of the Wisconsin Department of Industry, Labor and Human Relations.

The worker's compensation law of Wisconsin defines an injury as mental or physical harm to an employee caused by accident or disease, including mental harm or emotional stress or strain without physical trauma, if it arises from exposure to conditions or circumstances beyond those common to occupational or nonoccupational life.

Worker's compensation insurance provides three distinct benefits for patients who have injuries or illnesses related to employment:

- coverage for health care expenses;
- payments for temporary loss of wages; and
- payments for permanent loss of earning capacity.

Determination of work-relatedness
Eligibility for worker's compensation benefits is determined by physicians. In general, acute injuries arising from traumatic incidents at work may be more easily determined. For disease processes, the determination can be much more difficult. The connection between a disease and employment is heavily dependent upon assessment of the "degree of exposure" to a particular chemical or physical agent or a biomechanical strain.

Physicians and employers can work together to provide specific information about the work history or the specific job the worker was performing when injured. Open communication improves the decision-making capability of the treating physician and provides more credible opinions, particularly when cases are litigated.

It is important for physicians to be independent, scientific, and objective in their evaluation and treatment of patients. Prompt and regular reports will assure prompt and regular payment of benefits to the worker. Such payment reduces anxiety and promotes healing.

The physicians' decisions regarding work-relatedness, diagnosis, and initial treatment are conveyed through the Worker's Compensation Divi-

Continued on page 137

Wisconsin has had a living will law since October 1984. A copy of the living will form is on the facing page, with a description of the law on the reverse side. These laws allow adult persons to prospectively indicate their wishes concerning treatment of a terminal condition. A living will is only effective when the patient is no longer capable of participating in treatment decisions, and when the application of medical procedures would serve only to prolong imminent death.

In executing a living will, persons would not be authorized to consent to withholding or withdrawing nutritional support or fluid maintenance—this provision has proved to be the most controversial since the law's implementation. Declarants of living wills are responsible for notifying their attending physicians, and the attending physician is required to file an original, signed, living will within the declarant's medical record.

"LIVING WILL" FORM

DOH 0060 (Rev. 5/86)
s. 154.03 (1), (2)

Effective Date
April 22, 1986

PLEASE BE SURE YOU READ AND UNDERSTAND THE INFORMATION ON THE BACK BEFORE COMPLETING DECLARATION

DECLARATION TO PHYSICIANS

Declaration made this _____ day of _____ (month), _____ (year).

1. I, _____, being of sound mind, wilfully and voluntarily state my desire that my dying may not be artificially prolonged if I have an incurable injury or illness certified to be a terminal condition by 2 physicians who have personally examined me, one of whom is my attending physician, and if the physicians have determined that my death is imminent, so that the application of life-sustaining procedures would serve only to prolong artificially the dying process. Under these circumstances, I direct that life-sustaining procedures be withheld or withdrawn and that I be permitted to die naturally, with only: a. The continuation of nutritional support and fluid maintenance; and b. The alleviation of pain by administering medication or other medical procedure.

2. If I am unable to give directions regarding the use of life-sustaining procedures, I intend that my family and physician honor this declaration as the final expression of my legal right to refuse medical or surgical treatment and to accept the consequences from this refusal.

3. If I have been diagnosed as pregnant and my physician knows of this diagnosis, this declaration has no effect during the course of my pregnancy.

4. This declaration takes effect immediately.

I understand this declaration and I am emotionally and mentally competent to make this declaration.

Signed _____

Address _____

I know the declarant personally and I believe him or her to be of sound mind. I am not related to the declarant by blood or marriage, and am not entitled to any portion of the declarant's estate under any will of the declarant. I am neither the declarant's attending physician, the attending nurse, the attending medical staff nor an employe of the attending physician or of the inpatient health care facility in which the declarant may be a patient and I have no claim against the declarant's estate at this time, except that, if I am not a health care provider who is involved in the medical care of the declarant, I may be an employe of the inpatient health care facility regardless of whether or not the facility may have a claim against the estate of the declarant.

Witness _____

Witness _____

This declaration is executed as provided in chapter 154, Wisconsin Statutes.

Note: This blank form may be duplicated.

A. Definitions

(1) "Attending physician" means a physician licensed under ch. 448 who has primary responsibility for the treatment and care of the patient.

(2) "Declaration" means a written, witnessed document voluntarily executed by the declarant under chapter 154, Wisconsin Statutes, but is not limited in form or substance to that provided in ch. 154. *Only the original declaration is a valid instrument.*

(3) "Health care professional" means a person licensed, certified or registered under ch. 441, 448 or 455.

(4) "Inpatient health care facility" has the meaning provided under s. 140.86 (1) and includes community-based residential facilities, as defined in s. 50.01 (1)

(5) "Life-sustaining procedure" means any medical procedure or intervention that, in the judgment of the attending physician, would serve only to prolong the dying process but not avert death when applied to a qualified patient. "Life-sustaining procedure" includes assistance in respiration, artificial maintenance of blood pressure and heart rate, blood transfusion, kidney dialysis and other similar procedures, but does *not* include:

(a) The alleviation of pain by administering medication or by performing any medical procedure.

(b) The provision of fluid maintenance and nutritional support.

(6) "Qualified patient" means a declarant who has been diagnosed and certified in writing to be afflicted with a terminal condition by 2 physicians, one of whom is the attending physician, who have personally examined the declarant.

(7) "Terminal condition" means an incurable condition caused by injury or illness that reasonable medical judgment finds would cause death imminently, so that the application of life-sustaining procedures serves only to postpone the moment of death.

B. Who May Sign A Declaration

Any person 18 years of age or older and of sound mind may voluntarily execute a declaration authorizing the withholding or withdrawal of life-sustaining procedures when the person is in a terminal condition.

C. Effective Date

This declaration takes effect immediately.

D. Procedures For Signing Declarations

A declaration must be signed by the declarant in the presence of 2 witnesses.

If the declarant is physically unable to sign the declaration, the declaration must be signed in the declarant's name by one of the witnesses or some other person at the declarant's express direction and in his or her presence. Such a proxy signing shall either take place or be acknowledged by the declarant in the presence of 2 witnesses.

The declarant is responsible for notifying his or her attending physician of the existence of the declaration. An attending physician who is so notified shall make the original declaration a part of the declarant's medical records.

E. Restrictions on Witnesses

Witnesses to the signing of a declaration may *not*:

1) Be related to the declarant by blood or marriage.
2) Be entitled to any portion of the estate of the declarant upon his or her decease under any will of the declarant.
3) Be the attending physician, the attending nurse or the attending medical staff, an employe of the attending physician or an employe of the inpatient health care facility in which the declarant is a patient who is a health care provider under s. 146.81 (1) and is involved in the medical care of that patient, or have a claim against any portion of the estate of the declarant upon his or her death at the time of the execution of the declaration.

F. Revocation of Declaration

A declaration may be revoked at any time by the declarant by any of the following methods:

1) By being canceled, defaced, obliterated, burned, torn or otherwise destroyed by the declarant or by some person who is directed by the declarant and who acts in the presence of the declarant.
2) By a written revocation of the declarant expressing the intent to revoke, signed and dated by the declarant.
3) By a verbal expression by the declarant of his or her intent to revoke the declaration, but only if the declarant or a person acting on behalf of the declarant notifies the attending physician of the revocation.

The attending physician shall record in the declarant's medical records the time, date and place of the revocation and time, date and place, if different, that he or she was notified of the revocation.

G. Effect of Declaration

The desires of a qualified patient who is competent supersede the effect of the declaration at all times. If a qualified patient is incompetent at the time of the decision to withhold or withdraw life-sustaining procedures, a declaration, properly executed, is presumed to be valid.

The declaration of a qualified patient who is diagnosed as pregnant by the attending physician has no effect during the course of the pregnancy.

In the absence of actual notice to the contrary, a physician or inpatient health care facility may presume that a person who executed a declaration was of sound mind at the time.

H. Liabilities

No physician, inpatient health care facility or health care professional acting under the direction of a physician may be held criminally or civilly liable, or charged with unprofessional conduct, for any of the following:

1) Participating in the withholding or withdrawal of life-sustaining procedures under ch. 154.
2) Failing to act upon a revocation unless the person or facility has actual knowledge of the revocation.
3) Failing to comply with a declaration, except that failure by a physician to comply with a declaration of a qualified patient constitutes unprofessional conduct if the physician refuses or fails to make a good faith attempt to transfer the patient to another physician who will comply with the declaration.

I. General Provisions

SUICIDE. The withholding or withdrawal of life-sustaining procedures in accordance with Ch. 154 does not, for any purpose, constitute suicide. Execution of a declaration does not, for any purpose, constitute attempted suicide.

LIFE INSURANCE. Execution of a declaration under Ch. 154 may not be used to impair in any manner the procurement of any policy of life insurance. No policy of life insurance may be impaired in any manner by the withholding or withdrawal of life-sustaining procedures from an insured qualified patient.

HEALTH INSURANCE. No person may be required to execute a declaration as a condition prior to being insured for, or receiving, health care services.

Continued from page 134

sion's WC-16B form, entitled "Practitioner's Report on Accident or Industrial Disease in Lieu of Testimony." Completion of the form may be requested by an insurance carrier, an employee-patient, or an attorney. Upon completion, it should be returned to the party requesting it and will generally eliminate the need for testimony at a worker's compensation hearing. Failure to submit the form could result in a subpoena.

A special brochure, "Guide for Wisconsin Doctors Using The WC-16B Form" (WKC-7760) is available to assist you. A copy can be obtained from the Public Education Office, Worker's Compensation Division, PO Box 7901, Madison, WI 53707; 608-266-8480.

SMS President JD Kabler, MD, (left) presents Roger L. von Heimburg, MD, (right) with the SMS Meritorious Service Award.

Temporary disability

Most worker's compensation cases initially fall into the category of temporary total disability which covers the period immediately after injury. This is the period of treatment and healing before it can be determined whether there is any permanent disability.

It is important for all parties involved in the worker's compensation system to help return the injured or ill worker to the job as soon as possible. Eligibility for temporary disability benefits is determined, and must be managed, by the physician. Most employers have become aware of the advantages of early return to work, even if in a limited capacity, and a growing body of health care research is finding that if the employee is away from the work force for too long, the possibility of returning is greatly diminished.

The physician must determine the appropriate medical restrictions, then allow the employer an opportunity to assign suitable work, if available. If none is available at that time, temporary disability benefits are continued until the employee-patient is able to return to work in some capacity. Again, open communication with the worker and employer allows the physician to best manage the disability aspect of the injury.

Permanent disability

When an employee-patient's condition has leveled off and the prospect for future improvement is unlikely, the physician usually declares that a healing plateau has been reached. The patient is then evaluated for any residual permanent disability, generally referred to as a Permanent Partial Disability (PPD) rating. Delays and confusion can lead to hardships for the injured worker, the employer, and the insurance industry.

Permanent partial disability applies to the lost use of a physical capacity, mental capacity, or particular body part (or parts) after a temporary injury or disease has reached a plateau. Injured workers may be capable of returning to their previous employment or may have to be returned to some other type of employment within their functional abilities. Permanent partial disability is awarded for the potential, or actual, loss of earning capacity.

The Wisconsin worker's compensation law has set forth a schedule for various kinds of injuries, with a corresponding number of weeks for which benefits are allowed. This schedule states the number of weeks benefits will be allowed for each condition. For scheduled permanent partial disability ratings, the law requires that the degree of disability or loss of function should be compared to total amputation of the affected or nearest joint. For example, total knee replacement is scheduled to be 40% loss compared to amputation at the knee.

For permanent injuries that are not listed on the schedule of injuries, such as internal injuries to the head, back or torso, a medical estimate must to be made as to the amount of permanent loss. These nonscheduled injuries must take into account the employee's ability to perform in the labor market to that present before the injury. These permanent partial disability ratings are generally compared to the body as a whole rather than to a specific joint or function.

Permanent partial disability is reported on the Worker's Compensation Division's WC-16 form. This form is sent to the physician by the insurance carrier or employer, which

then forwards a copy to the Worker's Compensation Division, where it is the only record upon which the amount of compensation for permanent disability is made. Proper completion of the entire form will benefit all parties and expedite the payments to the injured employee as well as the physician.

If there is no continuing permanent disability, this should be stated explicitly. Vague statements such as "none anticipated" impair the administrative processing of the claim. If surgery was performed, this should be stated.

Another Worker's Compensation Division booklet, "How to Evaluate Permanent Disability," is also available. Ask for WKC-7761 from the Worker's Compensation Division.

Wisconsin Department of Industry, Labor and Human Relations

Main office: Worker's Compensation Division, Room 161, PO Box 7901, Madison, WI 53707; 608-266-1340.

Milwaukee area: Worker's Compensation Division, 3rd Floor, State Office Building, 819 N Sixth St, Milwaukee, WI 53203; 414-227-4382.

Other items of interest

- Disputed health care costs: Under a 1986 state law, the Worker's Compensation Division now resolves disputes between worker's compensation insurers and health care providers over payment of WC-related bills. If a worker's compensation insurer or self-insured employer, after studying treatment costs in a geographical area, declines to pay the full cost billed for treatment, the physician may appeal the decision to the Worker's Compensation Division.
- Releases and requests for information: Under state law, a physician may report an injury or disability to a worker's compensation insurance carrier or employer without a release from the injured party. In some cases, when a carrier requests medical information from a physician, the carrier will have a signed release from the worker.
- The employee's right to choose a treating physician, chiropractor, or podiatrist: The injured worker no longer is required to choose a physician from a panel; any licensed physician in Wisconsin can be selected. An injured person also has the right to a second choice, if the worker has first notified the insurance carrier or self-insured employer of this decision. Referrals from one physician to another are not considered to be second choices.

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Contesting worker's compensation charges

The Wisconsin Department of Industry, Labor and Human Relations (DILHR) has established an appeals mechanism through which physicians can contest attempts by insurance carriers to reduce charges for patients covered by Worker's Compensation. Physicians can initiate an appeal by completing a one-page form listing his or her name, the patient's name, the amount billed, and the amount paid.

Several insurance carriers and third-party administrators have recently cited a November 1985 amendment to the Worker's Compensation Law as justification for arbitrarily reducing physician charges. The SMS reminds members that DILHR —not the carriers—has the authority to determine the reasonableness of charges submitted by physicians for the care of patients covered by Worker's Compensation.

DILHR has acknowledged that merely exceeding a carrier's percentile limits does not necessarily constitute an unreasonable charge. Thus, the agency has reversed decisions based solely on percentile reimbursement schemes in favor of the physician. The SMS encourages all physicians to appeal or to contest all carrier actions they deem inappropriate. The staff of the SMS Division of Medical Policy and Practice is available to provide members with technical assistance in the appeals process.

A copy of the appeals form may be obtained from the Worker's Compensation Division, PO Box 7901, Madison, WI 53707.

Return to work recommendations

Clinicians have long recognized that patients benefit psychologically and physically when their convalescent period is shortened. Any resumption of activity must, of course, be consistent with the patient's temporary or permanent restrictions.

The attending physician's return-to-work recommendations form shown on the following page was developed by interested medical and industrial groups to help facilitate the patient's return to the work force. The SMS's Environmental and Occupational Health Committee and Health Care Quality, Costs and Utilization Committee have reviewed and endorsed its use. Although it is not all-inclusive, the return-to-work form does provide the attending physician with functional guidelines for return-to-work recommendations. Space is also provided for the physician to list any special limitations such as temperature extremes, contact with skin irritants, and visual and hearing problems. The patient should sign the authorization on the bottom of the form before information is released to the employer. By completing this form the attending physician will help the employer identify a job the patient may perform despite his or her work restrictions.

The form is not protected by copyright and may be reproduced without restriction. It is available to members in three-part sets from SMS Services, Inc. For more information, contact: Return-to-work Form, SMS Services, Inc, PO Box 1109, Madison, WI 53701; or phone 608-257-6781, or toll-free in Wisconsin 1-800-362-9080.

The Center for Health Statistics in the State Division of Health is responsible for implementing Wis Stat 69.186, which requires hospitals, clinics, or other facilities to report induced abortions to the Department of Health and Social Services.

Induced abortion reporting (§69.186)
(1) On or before January 15 annually, each hospital, clinic or other facility in which an induced abortion is performed shall file with the department a report for each induced abortion performed in the hospital, clinic or other facility in the previous calendar year. Each report shall contain all of the following information, with respect to each patient obtaining an induced abortion in the hospital, clinic or other facility:

(a) The state and, if this state, the county of residence.

(b) Patient number.

(c) Race.

(d) Age.

(e) Marital status.

(f) Month and year in which the induced abortion was performed.

(g) Education.

(h) The number of weeks since the patient's last menstrual period.

(i) Complications, if any, resulting from performance of the induced abortion.

(2) The department shall collect the information under sub. (1) in a manner which the department shall specify and which ensures the anonymity of a patient who receives an induced abortion, a health-care provider who provides an induced abortion and a hospital, clinic or other facility in which an induced abortion is performed. The department shall publish annual demographic summaries of the information obtained under this section, except that the department may not disclose any information obtained under this section that reveals the identity of any patient, health-care provider or hospital, clinic or other facility and shall ensure anonymity in all of the following ways:

(a) The department may use information concerning the patient number under sub.(1)(b) or concerning the identity of a specific reporting hospital, clinic or other facility for purposes of information collection only, and may not reproduce or extrapolate this information for any purpose.

(b) The department shall immediately destroy all reports submitted under sub.(1) after information is extrapolated from the reports for use in publishing the annual demographic summary under this subsection.

In §69.186, the term *induced abortion* means the termination of a uterine pregnancy by a physician of a woman known by the physician to be pregnant, for a purpose other than to produce a live birth or to remove a dead fetus.

Enacted April 29, 1986.

ATTENDING PHYSICIAN'S RETURN TO WORK RECOMMENDATIONS RECORD

Company Name

Patient's Name (Last) (First) (Middle Initial)

Date of Injury/Illness

TO BE COMPLETED BY ATTENDING PHYSICIAN—PLEASE CHECK

DIAGNOSIS/CONDITION (Brief Explanation)

I saw and treated this patient on _____ (Date) and based on the above description of the patient's current medical problem:

1. ☐ Recommend his/her return to work with no limitations on _____ (Date).
2. ☐ He/She may return to work on _____ (Date) with the following limitations:

CHECK ONLY AS RELATES TO ABOVE CONDITIONS

☐ **Sedentary Work.** Lifting 10 pounds maximum and occasionally lifting and/or carrying such articles as dockets, ledgers, and small tools. Although a sedentary job is defined as one which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.

☐ **Light Work.** Lifting 20 pounds maximum with frequent lifting and/or carrying of objects weighing up to 10 pounds. Even though the weight lifted may be only a negligible amount, a job is in this category when it requires walking or standing to a significant degree or when it involves sitting most of the time with a degree of pushing and pulling of arm and/or leg controls.

☐ **Light Medium Work.** Lifting 30 pounds maximum with frequent lifting and/or carrying of objects weighing up to 20 pounds.

☐ **Medium Work.** Lifting 50 pounds maximum with frequent lifting and/or carrying of objects weighing up to 25 pounds.

☐ **Light Heavy Work.** Lifting 75 pounds maximum with frequent lifting and/or carrying of objects weighing up to 40 pounds.

☐ **Heavy Work.** Lifting 100 pounds maximum with frequent lifting and/or carrying of objects weighing up to 50 pounds.

1. In an 8 hour work day patient may:
   a. Stand/Walk
      ☐ None ☐ 4-6 Hours
      ☐ 1-4 Hours ☐ 6-8 Hours
   b. Sit
      ☐ 1-3 Hours ☐ 3-5 Hours ☐ 5-8 Hours
   c. Drive
      ☐ 1-3 Hours ☐ 3-5 Hours ☐ 5-8 Hours
2. Patient may use hand(s) for repetitive:
   ☐ Single Grasping ☐ Pushing & Pulling
   ☐ Fine Manipulation
3. Patient may use foot/feet for repetitive movement as in operating foot controls: ☐ Yes ☐ No
4. Patient may:

	Not At All	Occasionally	Frequently
a. Bend	☐	☐	☐
b. Twist	☐	☐	☐
c. Squat	☐	☐	☐
d. Climb	☐	☐	☐
e. Reach	☐	☐	☐

OTHER INSTRUCTIONS AND/OR LIMITATIONS INCLUDING PRESCRIBED MEDICATIONS

3. ☐ These restrictions are in effect until _____ (Date) or until patient is reevaluated on _____ (Date).
4. He/she is totally incapacitated at this time. Patient will be reevaluated on _____ (Date).
5. Referred To: ☐ None ☐ Private physician _____ (Doctor)
   ☐ Return Here _____ (Date & Time) ☐ A Consultant _____ (Doctor, Date & Time)

Physician's Signature

Date

AUTHORIZATION TO RELEASE INFORMATION

I hereby authorize my attending physician and/or hospital to release any information or copies thereof acquired in the course of my examination or treatment for the injury identified above to my employer or his representative.

Patient's Signature

Date

Crime victim compensation

The Crime Victim Compensation Program in Wisconsin was created in 1975. It is intended to alleviate some of the direct financial burdens faced by the innocent victims of most personal injury crimes committed in the state. Administered by the Office of Crime Victim Services in the Wisconsin Department of Justice, the crime victim compensation (CVC) program has an annual budget of approximately $1.3 million for benefit programs. Since nearly half of this amount goes to cover medical bills, it is useful for physicians and other health care providers to be familiar with the program.

Program eligibility

Generally, persons eligible for coverage include the innocent victims of crime who suffer physical injury or death (including their surviving dependents and legal representatives), as well as persons injured or killed while aiding a victim or police officer ("Good Samaritan"). In addition, family or household members who suffer a reaction from the death of a victim may also qualify for benefits.

Nearly all personal injury crimes are covered by the program. These include, for example, homicide, manslaughter, battery, assault, sexual assault and abuse of children. In addition, certain victims of drunk driving accidents may also be covered.

The program does not require that an offender be apprehended or prosecuted in order for a victim to obtain benefits. Persons who themselves committed a crime or whose conduct substantially contributed to the infliction of the injury or death are not eligible for program benefits. Victims must have reported the crime to a law enforcement agency within five days of the incident and must cooperate with appropriate law enforcement agencies in the investigation and prosecution of the case in order to be eligible for benefits.

Benefits

The maximum award for any one injury or death is $40,000. Expenses eligible for reimbursement are those direct out-of-pocket costs incurred as a direct result of the crime.

Available benefits include payments for medical treatment, which includes medical, hospital, surgical, dental, optometric, and podiatric care. Also covered are payments for medical supplies, such as prescription drugs, crutches, and artificial limbs and appliances (and training in the use of artificial limbs and appliances).

Mental health counseling costs are covered if the service is provided by a licensed psychiatrist or a licensed psychologist. In addition, counseling provided under the supervision of a licensed psychiatrist or psychologist by either a psychotherapist certified under the Wisconsin Medical Assistance Program, or by a crisis counselor employed by a recognized crisis counseling agency may also be eligible for coverage.

The program does not pay for pain and suffering, or for most types of property losses or damage, although

JD Kabler, MD, (left) passes the SMS presidential medallion to William L. Treacy, MD, (right) at the annual meeting.

essential personal items, such as glasses and dentures damaged as a direct result of a crime, may qualify for reimbursement.

The second largest category of payments is for lost wages and loss of support to the dependents of a deceased victim. Other eligible expenses include: the reasonable replacement cost of clothing or bedding held as evidence by law enforcement or a crime laboratory (up to $300), reasonable replacement value of other property held as evidence and made unusable by crime lab testing (up to $200), crime scene clean-up and security (up to $1,000), and homemaker services.

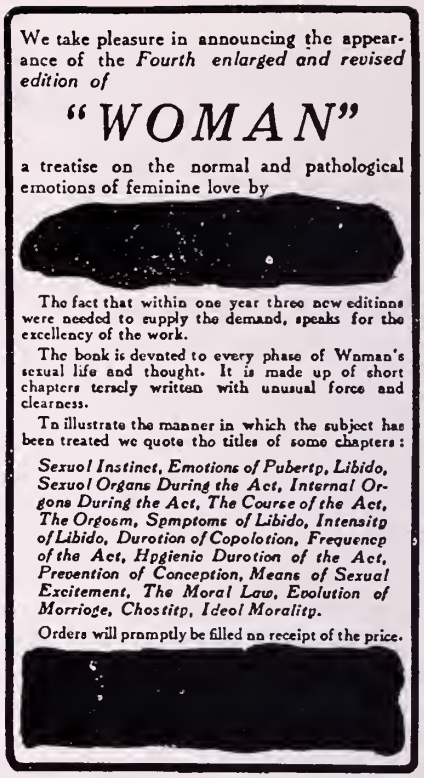
In addition, up to $2,000 may be paid for reasonable funeral expenses. This may be in addition to the $40,000 maximum allowable for the other expenses.

As the "payer of last resort," the crime victim compensation program deducts expenses paid by collateral sources, such as private insurance policies or workers' compensation.

Claims Processing

The responsibility for filing and pursuing a claim rests with the victim of the crime. To process an application, the program must verify the submitted information, and thus requires supporting documentation, including a Physician's Certification. This form describes the victim's injury and the treatment given, and can be used in lieu of the physician's testimony if the case goes to hearing.

For further information on the program, please contact Crime Victim Compensation, PO Box 7951, Madison, WI 53707-7951, or call 608-266-6470 (Madison) or 414-227-3987 (Milwaukee).


We take pleasure in announcing the appearance of the *Fourth enlarged and revised edition of*

"WOMAN"

a treatise on the normal and pathological emotions of feminine love by

The fact that within one year three new editions were needed to supply the demand, speaks for the excellency of the work.

The book is devoted to every phase of Woman's sexual life and thought. It is made up of short chapters tersely written with unusual force and clearness.

To illustrate the manner in which the subject has been treated we quote the titles of some chapters:

Sexual Instinct, Emotions of Puberty, Libido, Sexual Organs During the Act, Internal Organs During the Act, The Course of the Act, The Orgasm, Symptoms of Libido, Intensity of Libido, Duration of Copulation, Frequency of the Act, Hygienic Duration of the Act, Prevention of Conception, Means of Sexual Excitement, The Moral Law, Evolution of Morriage, Chastity, Ideal Morality.

Orders will promptly be filled on receipt of the price.

In 1908, this ad appeared in JAMA and prompted the WMJ to run a censored version with an editorial: "Though the facts may be otherwise, there is hardly a line in the advertisement to indicate that this book contains anything but the veriest filth. This advertisement arouses our disgust."

Pediatricians oppose involuntary drug screening

The American Academy of Pediatrics announced that it opposes involuntary drug testing for older adolescents, and that permission from parents is not sufficient to screen this group for drugs without their approval. The AAP also said that student athletes should not be singled out for involuntary drug screening. Except for health-related purposes, such testing should not be a condition for participation in sports or any school function.

Narcotics registration

Annual registration

A physician who desires to dispense, administer, or prescribe any controlled drug substance is required to have a Drug Enforcement Administration (DEA) number. The initial registration application may be obtained from the DEA divisional office in Chicago. The office has informed the SMS that DEA headquarters will then mail a renewal application to each physician approximately 45 days before the expiration date found on the certificate.

Change of residence

Physicians who move or change their place of business must notify the DEA, Registration Branch, 219 S Dearborn, Suite 500, Chicago, IL 60604.

In case of death

According to the regional director of the DEA in Chicago, the deceased physician's DEA number (controlled substances registration certificate), unused government order forms (DEA-222c), and controlled substances should be disposed of as soon as possible. The registration certificate and order forms should be returned to the DEA at the above address. Procedures for the destruction of controlled substances may be obtained by calling the Chicago divisional office.

Forms and additional information may be obtained by writing the Chicago office at the above address or by calling the agency at 312-353-7875.

Preprinted prescription blanks

The DEA reports that neither federal law nor administrative regulations prohibits the printing of the physician's narcotic registration number on prescription blanks.

Adoption in Wisconsin

Licensed adoption service agencies

Adoption Advocates, Inc
1310 Mendota St, Madison 53714; 608-246-2844

Adoption Choice
2542 N Terrace Ave, Milwaukee 53186; 414-332-7732

Adoption Option
1804 Chapman Dr, Waukesha 53186; 414-544-4278

Adoption Services of Green Bay
529 S Jefferson, #105, Green Bay 54301; 414-432-2030

Bethany Christian Services of Wisconsin
W255 N477 Grandview Blvd, #207, Waukesha 53188; 414-547-6557

Building Families Through Adoption
RR 2, Bangor 54614; 608-486-4367

Catholic Charities, Inc
128 S 6th St, Box 266, LaCrosse 54601; 608-782-0704

Catholic Social Services, Green Bay
Box 1825, Green Bay 54305-5825; 414-437-6541

Catholic Social Services, Madison
4905 Schofield St, Monona 53716

Catholic Social Services
2021 N 60th St, Milwaukee 53208; 414-771-2881

Children's Service Society of Wisconsin
1212 S 70th St, West Allis 53214

Community Adoption Center
101 E Milwaukee, #322, Janesville 53545; 608-756-0405

Evangelical Child Family Agency
2401 N Mayfair Rd, Milwaukee 53226; 414-476-9550

Hope International Family Services, Inc
421 S Main St, Stillwater, MN 55082; 612-439-2446

Jewish Family Services
1360 N Prospect Ave, Milwaukee 53202; 414-273-6575

LDS (Latter Day Saints) Social Services
4864 S 10th St, Milwaukee 53211; 414-483-1352

Lutheran Counseling and Family Services
3515 N 124th St, Brookfield 53005; 414-783-4564
Mailing address: Box 13367, Wauwatosa 53213

Lutheran Social Services of Wisconsin and Upper Michigan
3200 W Highland Blvd, Milwaukee 53208; 414-342-7175

Northern Family Services
1835 Stevens St, Box 237, Rhinelander 54501; 715-369-1554

Pauquette Children's Services, Inc
315 W Conant St, Portage 53901-8004

Seven Sorrows Infant Home
Route 2, Box 905, Necedah 54646; 608-565-2417

Sunny Ridge Family Center, Inc
c/o Bethel Baptist Church
1601 Libal St, Green Bay 54301; 414-437-2040

Wisconsin Lutheran Child and Family Services
6800 N 76th St, Milwaukee 53219

Homes Open Wide
405 N Main, Oshkosh 54901; 414-235-6239

How to get health information

The Wisconsin Health Sciences Library Network is available for practitioners throughout the state. First contact the library in your institution. If you are an independent practitioner or your institution has no library, contact another local hospital or clinic. A great number of these libraries are now organized into resource-sharing consortia and can obtain needed information quickly, even if it is not found among their own collections. The libraries are also eligible to forward requests to the two Wisconsin resource libraries—in Madison, the UW Middleton Health Sciences Library, and in Milwaukee, the Todd Wehr Library at the Medical College of Wisconsin.

If no local library is available send inquiries directly to the resource libraries at the addresses below. Any requests that can't be filled at the state level are eligible for referral to resource libraries in the Greater Midwest Regional Medical Library Network, which covers a ten-state area, and to the National Library of Medicine.

In addition to providing lending and photocopying services, the two resource libraries and many of the local libraries provide reference services. Computer searches, including MEDLINE, are also available at the resource libraries and at Winnebago Mental Health Institute, Winnebago; St Clare Hospital, Monroe; Ashland Memorial, Ashland; St Joseph's School of Nursing, Marshfield; Sheboygan Memorial, St Nicholas Hospital, Sheboygan; St Francis Medical Center, Milwaukee; St Clare, Baraboo; St Croix Memorial Hospital, St Croix Falls; Beloit Memorial, Beloit; New Berlin Memorial, New Berlin; Columbia, St Joseph's, St Luke's, St Mary's St Michael, St Francis hospitals and Sinai-Samaritan Medical Center, Milwaukee; Milwaukee County Medical Complex; Trinity

Memorial Hospital, Cudahy; VA Hospital, Wood; St Elizabeth's Hospital, Appleton; Luther Hospital, Eau Claire; La Crosse Lutheran Hospital, La Crosse; Marshfield Clinic, Marshfield; Bellin Memorial Hospital, Green Bay; Waukesha Memorial Hospital, Waukesha; the Howard Young Medical Center, Woodruff; Holy Family Hospital, Manitowoc; Theda Clark Regional Medical Center, Neenah; Mercy Medical Center, Oshkosh; St Vincent's Hospital, Green Bay; Community Memorial Hospital, Menomonee Falls; Memorial Hospital at Oconomowoc, Oconomowoc; St Luke's Hospital, Racine; VA Hospital, Tomah; Wausau Hospital Center, Wausau; West Allis Memorial Hospital, West Allis; Mercy Hospital, Janesville; St Agnes Hospital, Fond du Lac; and Meriter-Methodist and Meriter-Madison General, Madison, St Mary's Hospital Medical Center, VA Hospital, and UW Clinical Sciences Center in Madison.

If your local library cannot provide computer searches, it can forward any request to the most appropriate library in the network. In most cases, the only charges will be for computer searches and photocopies.

There are now software programs and training courses that assist health professionals in their own searches. Contact your local library or a resource library for information.

University of Wisconsin
Middleton Health Sciences Library, 1305 Linden Dr, Madison, WI 53706; 1-800-362-3020, ext 22376

Medical College of Wisconsin
Todd Wehr Library, 8701 Watertown Plank Rd, Milwaukee, WI 53226; 414-257-8326

Wisconsin's government agencies

As of April 1, 1989

Constitutional officers

Governor
Tommy Thompson, 608-266-1212

Lieutenant Governor
Scott McCallum, 608-266-3516

Treasurer
Charles P. Smith, 608-266-3711

Attorney General
Donald Hanaway, 608-266-1221

Secretary of State
Douglas LaFollette, 608-266-5801

Superintendent of Public Instruction
Herbert Grover, 608-266-3390

Department of Health and Social Services

1 W Wilson St, Madison, WI 53702; 608-266-3681

Executive staff

Secretary
Patricia Goodrich, 608-266-3681

Deputy Secretary
John Torgerson, 608-266-3681

Division Administrators

Policy and Budget
(vacant), 608-266-8402

Management Services
Jim Meier, 608-266-3173

Corrections
Stephen Bablitch, 608-266-2471

Care and Treatment Facilities
Linda Belton, 608-266-8740

Health
George F. Mackenzie, 608-266-1511

Economic Support
(No information on this new division was available when the *Journal* went press.)

Community Services
Eloise Anderson, 608-266-2701

Vocational Rehabilitation
Judy Norman-Nunnery, 608-266-1281

Division of Health
1 W Wilson St, #218, PO Box 309, Madison, WI 53701; 608-266-1511
(Note: Use box number on first class mail for all bureaus.)

Administrator
George F. MacKenzie

Assistant Administrator for Public Health Services
William Schmidt

Assistant Administrator for Health Administration
John Chapin

Bureaus

Management and Policy: 608-266-7384
- Staffing of Health Policy Council
- Development of State Health Plan
- Graduate medical education

- Administration of resource
- Allocation program (nursing home projects)
- Health Personnel Shortage Areas recruitment

Health Care Financing: 608-266-2522
- Administration of the medical assistance program
- HealthCheck—Early and periodic screening, diagnosis, and treatment for children and other screening activities

Quality Compliance: 608-266-8847
- Title 18 and Title 19 certification
- Hospital, nursing home, and home health agency standard setting and enforcement
- Patient care evaluation construction and plan review
- Development of facilities standards

Community Health and Prevention: 608-266-8847
- Development and promotion of prevention programs
- Standard epidemiology
- Environmental epidemiology
- Immunization activities
- Chronic diseases

Controlled Substances Board

David P. Donarski, MD
414-435-8920
Gubernatorial appointment

Thomas A. Rudy, MD
Madison
Gubernatorial appointment

Gary H. Hamblin
608-266-1671
Representing the attorney general

Mike Boushon, vice chair
608-266-0722
Representing the Dept of Health and Social Services

Virginia T. Zehren, secretary
414-336-4906 or 414-433-3648
Representing the Pharmacy Examining Board

Gerald R. Myrdal
608-267-3500
Representing the Dept of Agriculture, Trade and Consumer Protection

Staff
Dennis W. Bobo
Bureau of Community Programs, PO Box 7851, Madison, WI 53707; 608-266-7586

Counsel
William Wilker
Dept of Justice, 608-266-1795

- Communicable diseases
- Participation in preventive efforts within and outside the Dept of Health and Social Services
- Promotion of research into major causes of illness and death and sponsorship of demonstration projects designed to reduce and eliminate causes
- Laboratory certification
- Public health nursing
- Public health nutrition
- Dental health
- Maternal and child health
- Family planning

Correctional Health Services: 608-266-5718
- Assurance of sufficient levels of physical health care for all inmates in correctional institutions and at Central State Hospital
- Management of the provision of such services to ensure effectiveness and efficiency
- Recruitment and staff of health care positions in the correctional institutions

Environmental Health
1400 E Washington Ave, Madison 53702; 608-266-9377
- Certification of Grade A milk
- Inspection of hotels, restaurants and food vending services where not performed by local public health agencies
- General environmental sanitation
- Radiation protection
- Occupational health services
- Development of emergency medical service systems

Health Statistics: 608-266-1939
- Vital statistics
- Resource data
- Demographic and special analysis
- Services data

Regional Offices
MADISON, 53704-1104
3518 Memorial Dr, Bldg 4; 608-246-3280
Long Term Care, 5708 Odana Rd 53719; 608-273-6340
MILWAUKEE 53203
819 North 6th St, #860; 414-224-4082
Long Term Care, 414-227-5000
GREEN BAY 54301-5158
200 N Jefferson, #211; 414-436-3074
Long Term Care, 414-436-3074
EAU CLAIRE 54701-6143
Eau Claire State Office Bldg; 718 W Clairemont Ave; 715-836-4752
Long Term Care, 715-836-4752
RHINELANDER 54501-1165
1853 N Stevens St; 715-362-7800

(Note: Use box numbers on first class mail.)

Division of Community Services
State Office: 1 W Wilson St, PO Box 7851, Madison, WI 53707; 608-266-2701

Administrator's office

Administrator
Eloise Anderson, 608-266-0554
Assistant Administrator
William F. Griffin, 608-267-9059
Acting Assistant Administrator
Kristine Randal, 608-266-9879
Acting Assistant to Administrators and Legislative Liaison
Kathy Thomas, 608-267-7181
Acting Director, Children, Youth and Families
Larry Reuter, 608-266-6946
Public Information
Peggy Schmitt, 608-266-1138

Bureaus

Aging
Donna McDowell, 608-266-3840
Children, Youth and Families
Larry Reuter, 608-266-6946
Community Programs
Phillip McCullough, 608-266-3719
Alcohol and Other Drug Abuse
Larry Monson, 608-266-3442
Developmental Disabilities
Dennis Harkins, 608-266-9329
Mental Health
Debbie Allness, 608-266-3249
Physically Impaired
Dan Johnson, 608-266-9582
Program Support
Barbara Voltz, 608-266-2862
Long-Term Support
Tom Hamilton, 608-266-9304
Management and Budget
Bernie Stumbras, 608-267-2549
Budget and Aids Section
Bill Fiss, 608-266-3728
Financial Management
Peter Gehrke, 608-267-3606
Indian Affairs
Nancie Young, 608-266-5862
Operations and Support
David Robertson, 608-266-9674
Hispanic-Migrants
Irma Guerra, 608-267-9202
Wisconsin Resettlement Assistance
Jules Bader, 608-266-8358
Regional offices
WESTERN
Marjorie Kelly, Box 228, 718 W Clairmont Ave, Eau Claire 54702; 715-836-2157
EASTERN
Lewis McCauley, 200 N Jefferson, #411, Green Bay 54301; 414-436-3043
SOUTHERN
Mary Southwick, 3601 Memorial Dr, Madison 53704; 608-249-0441
MILWAUKEE
Nate Harris, 819 N 6th St, Milwaukee 53203; 414-227-4563
SOUTHEASTERN
Chuck Holton, 141 NW Barstow, PO Box 1258, Waukesha 53187; 414-521-5098
NORTHERN
Bart Bartholomew, 1853 N Stevens St, PO Box 697, Rhinelander 54501; 715-362-7800

District offices
FOND DU LAC 54935
485 S Military Road, Box 1069; 414-929-2985
ASHLAND 54806
601 2nd St, W, Box 72; 715-682-3405
WISCONSIN RAPIDS 54494
1681 Second Ave, S, Box 636; 715-423-4305
LA CROSSE 54601
3550 Mormon Coulee Road, Box 743; 608-785-9453

Division of Vocational Rehabilitation
State Office: 1 W Wilson St, #850, PO Box 7852, Madison, WI 53707; 608-266-1281

Administrator
J.R. Norman-Nunnery, 608-266-5466
Deputy Administrator
Kenneth T. McClarnon, 608-266-2168

Bureaus

Client Services
John H. Biddick, regional administrator, 608-266-1283
Olaf Brekke, regional administrator, 608-266-2380
R.F. Truesdell, regional administrator, 608-266-0589
R.R. VanDeventer, regional administrator, 608-266-0605
Operations and Planning
Patrick Mommaerts, director, 608-266-2956
James Powell, assistant bureau director, 608-267-5222
Planning and Program Support
Suzanne Lee, 608-267-8338
Susan Kidder, 608-267-7364
Sensory Disabilities
John Conway, director, 608-266-0437
Office for the Hearing Impaired
Director (vacant), 608-266-7802
CHIS Coordinator (vacant), 608-266-8140
Social Security Disability Insurance
William Shelton, 608-266-1981
Office for the Visually Handicapped
Michael Nelipovich, Acting Director, 608-266-5600
Governor's Committee for People with Disabilities
Ellen Daly, director, 608-266-5378

Field offices

L.E. Opheim, 517 Clairemont Ave, Eau Claire 54701; 715-836-4263

Paul Monzel, 820 S Main St, PO Box 1438, Fond du Lac 54935; 414-929-2924

John Haugh, 200 N Jefferson St, Green Bay 54301; 414-436-3417

(vacant), 514 S Main St, Janesville 53545; 608-755-2780

Willie Riley, 712 55th St, Kenosha 53140; 414-656-6453

Michael Gilbert, 333 Buchner Place, La Crosse 54603; 608-785-9500

Michael Greco, 600 Williamson St, Suite F, Madison 53703; 608-266-3655

Manuel Lugo, 5005 University Ave, #2, Madison 53705; 608-266-4541

Gilbert Chrisien, 120 E Capitol Dr, Milwaukee 53212; 414-229-0300

Noreen Ryan, 6815 W Capital Dr, Milwaukee 53216; 414-438-4860

Al DeBow, 3501 S Howell St, Milwaukee 53207; 414-769-2605

Jeanne Leland, 9401 W Beloit Rd, #408, Milwaukee 53227; 414-546-8340

James Mather, 303 Pearl Ave, Oshkosh 54901; 414-424-2028

Sharlene Hatcher, 5200 Washington Ave, Racine 53406; 414-636-3388

Roger Tooke, 158 S Anderson St, Rhinelander 54501; 715-369-3930

Michael Schroeder, 11 E Eau Claire, Rice Lake 54868; 715-234-6806

George Herrmann, 1428 N 5th, Sheboygan 53081; 414-459-3883

Leroy Forslund, 917 Tower Ave, Superior 54880; 715-392-7896

Frank Broder, 141 NW Barstow, Waukesha 53187; 414-548-5850

Kenneth Crass, 2416 Stewart Square, Wausau 54401; 715-845-9261

Dan Eisch, 2810-9th St, S, Wisconsin Rapids 54494; 715-424-1100

Division of Care and Treatment Facilities
State Office: 1 W Wilson St, PO Box 7851; 608-266-8740
Administrator: Linda W. Belton, 608-266-8740
Assistant to the Administrator:
Betty Blessinger, 608-267-9328
Deputy Administrator: Gerald E. Dymond, 608-267-7921
Program Support: Donald Pahnke, 608-267-2254
Planning and Evaluation: Beth Cox, 608-266-5774
Forensics Services: Marvin Chapman, MD, 608-266-1856
Client Advocacy: Joy Schwert or Shary Bisgard, 608-266-2713
Affirmative Action and Civil Rights Compliance: Jim Enriquez, 608-267-6733
Central Wisconsin Center for the Developmentally Disabled: R. C. Scheerenberger, PhD, 608-249-2151
Northern Wisconsin Center for the Developmentally Disabled: Terry Willkom, 715-723-5442
Southern Wisconsin Center for the Developmentally Disabled: Marlys S. Griffiths, 414-878-2411
Mendota Mental Health Institute: Terry Schnapp, 608-244-2411
Winnebago Mental Health Institute: H. David Goers, 414-235-4910
Wisconsin Resource Center: Phillip Macht, 414-426-4310

Department of Regulation and Licensing

1400 E Washington Ave, PO Box 8935, Madison, WI 53708; 608-266-2112
Secretary
Marlene A. Cummings, 608-266-8609
Deputy Secretary
Joyce D. Waldrop
Executive Assistant
Ave Bie

Center for Health Statistics Division of Health

The Center for Health Statistics is the custodian of birth, death, marriage and divorce records for the state. Also, the center has a contract with the National Center for Health Statistics for the collection of vital statistics and partial funding from the Medicaid program for the collection and analysis of data from health care providers. Another of the center's activities is the production of annual population estimates for Wisconsin counties, a part of the Federal-State Cooperative Program of the Bureau of the Census. Inquiries may be made to R.D. Nashold, Director, Center for Health Statistics, PO Box 309, Madison, WI 53701.

Bureau of Health Professions (partial listing)
John M. Young, director, 608-266-0483

Medical Examining Board
G. Thomas Pfaehler, MD (1989), Madison, chair
Michael Mehr, MD (1991), Marshfield, vice chair
H. Mowat Waldren, Jr, MD (1990), West Allis, secretary
Ann Neviaser (1992), Madison, public member
Douglas G. Devan, MD (1989), Kenosha
George W. Arndt, Sr, MD (1991), Neenah
Arlen Delp, DO (1990), Muskego
Susan Behrens, MD (1991), Beloit
Sandra Thomas (1992), Milwaukee, public member
Kenneth M. Viste, Jr, MD, Oshkosh, Patient's Compensation Fund
Clark O. Olsen, MD (1991), Ashland

Dentistry Examining Board
Kathleen Kelly, DDS (1989), Madison, chair
Jeffrey Leavell (1990), Racine, vice chair, public member
Robert J. Mork, DDS (1989), Janesville, secretary
David Crane, DDS (1989), Cadott
Eva Dahl, DDS (1990), La Crosse
Melodi Duwell, RDH (1993), Waupaca
Gwen Jackson (1992), Milwaukee, public member
Robert A. Henschel, DDS (1990), Elm Grove

Pharmacy Examining Board
Kenneth Schaefer, RPh (1991), Mosinee, chair
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Testing and reporting of AIDS and HIV

State law adopted in late 1985 created the requirement that written consent be obtained from any person undergoing a test for the presence of HIV antibody. This law also placed strict prohibitions on the disclosure of HIV antibody test results. In late 1987, additional legislation (1987 Wisconsin Act 70) regulating testing and disclosure of test results was adopted by Wisconsin's legislature. The provisions of current Wisconsin law regarding HIV antibody testing and reporting are summarized below.

Written consent for testing

In most cases, a signed consent form must be obtained before an HIV antibody test may be performed. The consent form must include the test subject's name; a statement that results may be disclosed as specified in the statutes, along with a list of the persons to whom disclosure may be made according to the statute, or a statement that the list is available upon request; and a space for the person's signature and date signed. The consent form may also include permission to disclose test results to persons other than those specified in the statute. If so, the form must state the name of the person(s) to whom disclosure may be made, and the time period during which the consent to disclosure is effective.

Who gives consent?

The law specifies that the subject of the test must give written consent for testing.

Exceptions to consent requirement

The subject's written consent for testing is not required in the following situations:

- When a health care provider is testing to determine the medical acceptability of an organ donation or donation of any other body part. Testing for the presence of HIV or HIV antibody is now mandatory, not only for blood and blood products, but also for all donated human body parts or human tissue, sperm or ova. If the test is positive, the donated blood, organ tissue, sperm or ova may not be used.
- When health care providers, blood banks and blood and plasma centers, certified laboratories, and the Department of Health and Social Services are testing for research purposes, and when the subject's identity is not known and may not be retrieved by the researcher. (Other provisions apply to research activities when a subject has given consent to testing; see below).
- Where an emergency caregiver has been significantly exposed, and the emergency or accident victim dies prior to HIV testing; where a health care provider or provider's agent or employee is significantly exposed to a corpse or to a patient who dies prior to HIV testing; or where a funeral director, coroner, medical examiner, their assistants or persons performing an autopsy are significantly exposed to the corpse, assuming that a physician has certified that the exposure met the criteria of "significant."

Disclosure without consent

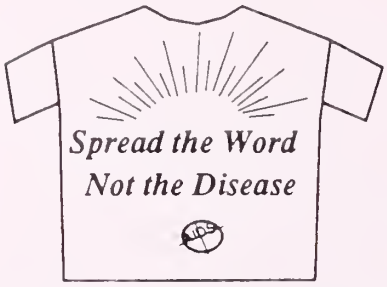
Once an HIV test is performed, the law specifies who may receive information regarding the test results without the patient's further consent. (The law relates to disclosure of test results, not disclosure that a test was done. Thus, a health insurer may be billed for the cost of doing the test, which de facto discloses that a test was done, without stating whether the test findings were positive or negative. Some laboratories, however, may require patient consent before billing an insurer, or give the patient the option of paying for the test directly.)

Test results may be disclosed to the following persons without patient consent specifically for disclosure:

- to the subject of the test;
- to the test subject's health care provider (including physicians, dentists, nurses, optometrists, and others defined in Wis Stats 146.81(1), and including those instances in which a health care provider provides emergency care to a patient;
- to employees or agents (of the subject's health care provider) who provide patient care or handle or process specimens of bodily fluids or tissues;
- to a blood bank or blood and plasma center performing the HIV test, for the purposes of determining the medical acceptability of the blood or plasma; notifying the test subject of the test results; or investigating HIV infections in blood or plasma;
- to a health care provider involved

PROMOTE AIDS EDUCATION

AMA MEDICAL STUDENT SECTION T-SHIRT SALE



Wear the t-shirt that promotes AIDS education. The t-shirts' slogan "**Spread the Word, Not the Disease** - AIDS" reflects the Medical Student Section's ongoing commitment to AIDS education. The Section sponsors a community action program "AIDS Education: Medical Students Respond" through which medical students help educate adolescents about AIDS.

The t-shirts are bright red and are available in sizes large and extra large.

Please enclose a $10.00 donation (per shirt) to the AMA-MSS/AMA-ERF International Scholars Fund. Price includes postage and handling. All proceeds will benefit the Scholars Fund.

AMA-MSS/AMA-ERF
International Scholars Fund
P.O. Box 59473
Chicago, IL 60659

Please send me _____ t-shirts

at $10.00 each. Size_____
Check enclosed for $_____

Name_____

Address_____

City, State_____

Zip_____

in organ doantion, for the purpose of assuring medical acceptability of the gift;

- to the state epidemiologist or designee;
- to a funeral director or other person preparing a body for burial or other disposition;
- to emergency caregivers, coroners, medical examiners and their assistants, funeral directors and persons performing or assisting in autopsies, who have sustained a significant exposure ("significantly exposed" means a contact which carries the potential for transmission of HIV by one or more of the following: transmission of blood, semen, or other body fluids into a body orifice; exchange of blood during the accidental or intentional infliction of a penetrating wound, including a needle puncture; blood or other body fluid exchange into an eye, an open wound, an oozing lesion, or where a significant breakdown in the epidermal barrier has occurred; exposition to saliva as a result of a bite during the course of which the skin is broken; the provision of cardiopulmonary resuscitation; other routes of exposure defined as significant in rules promulgated by DHSS). A disclosure of test results without patient consent under these sections of the statutes requires a physician's certification, based on information provided by the person, that the exposure was significant, as defined above;
- a subject's attending physician may (but is not required to) disclose the test results if positive, and if the subject is deceased, that information to persons with whom the subject has had sexual contact or has shared IV drug use paraphernalia;
- test results may be disclosed if the possible HIV status is relevant to the cause of death of a person whose death is under direct investigation by the coroner, medical examiner, or assistant; and
- test results may be disclosed to permit assigning a prisoner with a positive test result to a private cell to a sheriff, jailer, keeper of a prison, jail or house of correction or person designated with custodial authority by the sheriff, jailer or keeper of the facility.

Language regarding access to test results of physicians and other health care workers is clarified to assure that test results may be provided without specific patient consent to any health care provider who provides care to the person tested, including emergency care (not just the patient's primary physician); to agents or employees of health care providers who provide patient care, handle or process specimens of body fluids or tissues, or prepare or store patient health care records; and to persons who perform or assist in performing an autopsy.

Test results may also be disclosed under the following circumstances which parallel the general statutes authorizing disclosure of medical records:

- under a lawful order of a court of record;
- to a researcher, for research purposes, if the researcher is affiliated with the subject's health care providers; has obtained permission to perform the research from an institutional review board; and provides written assurance to the person disclosing the test results (not necessarily the test subject) that use of the information is only for the research purpose, the information will not be released to a person not connected with the study, and the final research project will not reveal patient-identifying information unless the researcher receives written consent from the patient; and
- to health care facility staff committees or accreditation or health care services review organizations, for the purposes of conducting program monitoring and evaluation and health care services reviews.

Disclosure with consent

Test results may be disclosed to anyone specified by the test subject

or patient, with the subject's written consent. Such written consent to disclose test results may be given at the time, and on the same form as the subject gives written consent to have the test performed. It may also be given on a separate form, at any time subsequent to the test. The form must include the name of the person(s) to whom disclosure may be made, the time during which the consent to disclosure (beginning and end) is effective, and the date on which the consent to disclosure is signed.

Medical records

Test results may be included in the medical record. They must, however, remain confidential, with disclosure allowed only as provided above. Note that several of the provisions for disclosure without patient consent, are identical to statutory provisions on disclosure without consent of a medical record or parts thereof. There are several statutory provisions allowing disclosure of medical records in general, which are not repeated in the statutes regarding HIV test disclosure. Care should be taken that HIV test results are not inadvertently disclosed under these circumstances:

- disclosure in response to a written request from a federal or state governmental agency (keep in mind that there is a specific exception for reporting positive test results to the state epidemiologist);
- disclosure to county agency investigating elder abuse;
- disclosure to the extent that records are needed for billing, collection or payment of claims; and
- for medical records generally the statutory wording on access to medical records by other health care providers and persons under their supervision is slightly different than the wording which specifically discusses provider access to test information.

Some have argued that medical records personnel are not covered by the statute referring to persons providing patient care, and thus may not have access to test results without patient consent. Assembly Health Committee records and correspondence from Health Committee chair Rep John Robinson, however, clearly state that it is the legislative intent to include medical records personnel among those having access to test results for purposes of performing their job functions.

State law was modified in late 1987 to note that pupil health records and ambulance run records relating to administration of care, patient names, medical history, and condition will be treated as patient health care records, and kept confidential.

State epidemiologist

All validated positive HIV antibody test results are to be reported to the state epidemiologist. The state epidemiologist defines a validated positive test. The report is to include:

- the name and address of the health care provider reporting;

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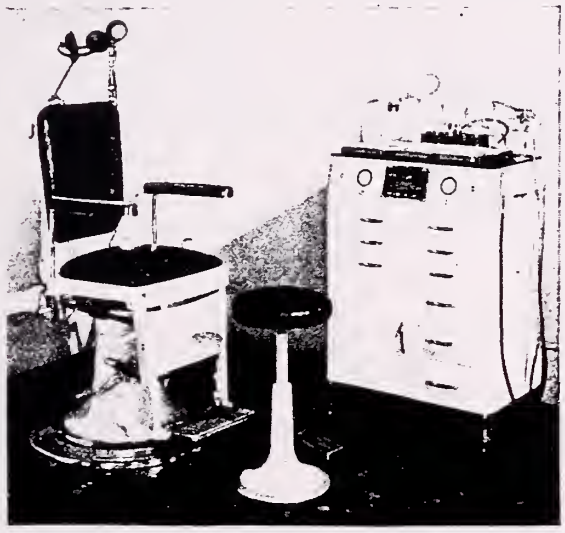

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An ad from the 1949 Wisconsin Medical Journal. Note the prices.

- if known, the name and address of the test subject's health care provider;
- if known, the test subject's name, address, phone number, age or date of birth, sex, race and ethnicity, and county of residence;
- the date on which the test(s) were performed, and the results; and
- other information which the state epidemiologist may require.

If a report of a positive HIV test is made, and the test subject has not yet been diagnosed with AIDS, the report may not include information on the test subject's sexual orientation or the identity of persons with whom the subject may have had sexual contact. This provision does not apply when a confirmed AIDS diagnosis, including antibody test results, is reported pursuant to the communicable disease statute reporting requirements.

Penalties

Disclosure of test results in violation of state statutes may bring civil or criminal penalties. Persons to whom information is legally disclosed are bound by the same restrictions as the persons originally having access to test results.

The penalty for performing a test without written consent (except as provided above), unlawfully disclosing test results, or (with positive tests) reporting sexual orientation or sexual contacts to the state, in absence of an AIDS diagnosis, is a fine of up to $1,000 for a negligent violation, and up to $5,000 for an intentional violation, plus the subject's actual damages and costs.

If test results are intentionally disclosed, "a criminal penalty may be levied of up to a $10,000 fine, or nine months imprisonment, or both."

OCI rules

The Wisconsin Office of the Commissioner of Insurance has an administrative rule, effective June 1, 1987, concerning access by the insurance companies to HIV antibody test results. Wisconsin Administrative Code Ins §3.53, allows life and health insurers to require applicants for individual life and health insurance policies to undergo HIV antibody testing as part of the application process. The rule also provides for insurers to require applicants for individual life and health insurance to reveal results of previous HIV antibody tests provided that the test is one approved by the state epidemiologist (series of ELISAs followed by Western Blot) and that the test was not conducted through a counseling and testing site.

Wisconsin law prohibits insurers from:

- requiring HIV antibody tests when underwriting group policies;
- requiring applicants to reveal HIV antibody results obtained through counseling and testing sites;
- submitting HIV antibody test results to the Medical Information Bureau (a nonprofit association of life insurance companies formed to conduct a confidential exchange of underwriting information) unless informed, written consent was received from the applicant prior to administering the test; and
- requiring an applicant to undergo HIV antibody testing, unless the cost of the testing is borne by the insurer.

Wisconsin's AZT reimbursement program

The Wisconsin Division of Health has the responsibility for managing the federally funded AIDS Drug Reimbursement Program. This program provides azidothymidine (AZT, zidovudine or Retrovir) to low-income persons with AIDS or HIV infection. Persons with low incomes, who are ineligible for medical assistance (MA) or other third-party reimbursement, or who have third-party insurance that pays only a portion of prescription costs are encouraged to request information and an application packet.

It is anticipated that federal funding for this program will be available at least through Sept 30, 1989. Because funding is limited, eligibility for assistance will be determined, in part, by the number of applications

Continued on page 156

PATIENT CONSENT FORM TO TEST FOR ANTIBODY TO HIV

I _____ of _____
(client name) (city, state)
have been advised by my health care provider(s) at _____
that I receive a blood test to detect antibody to human immunodeficiency virus (HIV), the virus that causes acquired immunodeficiency syndrome (AIDS). I have also been advised that the procedure, which involves the withdrawal by needle of a small amount of blood for laboratory testing (about 1-1/2 teaspoons), may cause some slight discomfort at the site of entry of the needle, and that the procedure has minimal risks, such as bruising, soreness and a slight risk of infection. I have been given an opportunity to ask questions regarding AIDS and the test and have had my questions answered. I have been informed by my provider(s) that the test, in his/her (their) opinion, is important both to my health care and to ensure that appropriate evaluation and adequate precautions can be taken to prevent transmission of the virus to others.

If I consent to have the test done, the test results will be placed in my medical record, and become part of my confidential medical history. I agree to have the test done and the results recorded in my medical record so that the persons involved in my health care will have access to that information.

I have been informed that my HIV test results will be maintained confidentially. I understand that my HIV test results shall not be released without my written permission, except to the individuals and organizations indicated below that have been given access by state law.

I have been informed that the results of a test for the presence of antibody to HIV may be disclosed only to the following persons or under the following circumstances:

1. Subject of the test.

2. To a health care provider who provides care to the test subject, including emergency care.

3. To an agent or employee of the test subject's health care provider, who provides patient care, handles or processes specimen's of body fluids or tissues, or prepares or stores patient health care records.

4. To a blood bank, blood center or plasma center that subjects a person to a test.

5. To a health care provider who procures, processes, distributes or uses a donated human body part, for the purpose of assuring medical acceptability of the gift for the purpose intended.

6. To the State Epidemiologist or his/her designee, for the purpose of providing epidemiologic surveillance or investigation or control of communicable diseases.

7. To a funeral director, or to other persons who prepare the body of a decedent for burial or other disposition, or to a person who performs an autopsy or assists in performing an autopsy.

8. To health care facility staff committees or accreditation or health care services review organizations for the purpose of conducting program monitoring and evaluation and health care services reviews.

9. Under lawful order of a court of record.

10. To a person who conducts research, for the purpose of research, if the researcher:

    a. Is affiliated with the test subject's health care provider.

    b. Has obtained permission to perform the research from an institutional review board.

    c. Provides written assurance that the use of the information requested is only for the purpose under which it is provided to the researcher, the information will not be released to a person not connected with the study, and the final research product will not reveal information that may identify the test subject unless the researcher has first received informed consent for disclosure from the test subject.

    A private pay patient may deny researchers access to disclosure of his/her test results if he/she annually submits to the maintainer of his/her test results a signed written request that denial be made.

11. To a person who is significantly exposed to the subject while providing emergency medical care.

12. To a coroner, medical examiner or appointed assistant if:

    a. The HIV-infected status is relevant to determination of cause of death.

    b. The coroner, medical examiner or appointed assistant is significantly exposed to the subject during direct investigation.

13. To a sheriff; jailer; keeper of a prison, jail or house of correction; or person designated with custodial authority for the purpose of arranging cell assignments.

14. To persons who have had sexual contact with or shared intravenous drug use paraphernalia with the subject, if the subject is deceased.

I have been informed that all of these individuals and organizations are also required by state law to keep my medical record information confidential.

I have been informed that insurance companies may take into consideration a positive HIV antibody test result when underwriting individual life, accident and health insurance. I understand an insurance company cannot have access to the test results unless I provide

separate written consent.
Any questions I have regarding this test and the consequences of placing the test results in my medical record have been answered to my satisfaction.

I consent to the performance of the HIV antibody test.

_____ _____
Signature of Patient Date

PATIENT'S BILLING CONSENT FOR HIV TESTING
(Select one option below)

1. _____I authorize the forwarding of the name of the test(s) and charges to my insurance company.

2. _____I do not give my consent to release the name of the test(s) to my insurance company. I will pay the bill myself.

Signature _____

I also authorize the following persons or agencies access to my HIV antibody test results:

_____ _____ to _____
Name of Person/Agency Date Valid

_____ _____ to _____
Name of Person/Agency Date Valid

_____ _____ to _____
Name of Person/Agency Date Valid

_____ _____
Signature of Patient Date

8/19/88

Continued from page 152
received. Physicians, AIDS service organizations and social service agencies with patients or clients that may be eligible for this program should call to request information. For an application packet or information, call 608-267-3583, or write to:
Holly M. Dowling, AIDS/HIV Program, Wisconsin Division of Health, PO Box 309, Madison, WI 53701-0309.

The specific criteria for eligibility are:

- the applicant must be a resident of Wisconsin;
- the applicant must have a documented HIV infection (reported HIV positive result or AIDS diagnosis);
- the applicant must have a physician's prescription for AZT; and
- the applicant must either apply for MA or explain why application for MA was not appropriate (eg, income exceeds limitations, previously denied).

In addition, the applicant must complete and submit the financial portion of the application and meet the established income cut-off: 150% of the federal low income standard, plus $10,000 (eg, for a one-person household, income equal to or less than $18,250). The applicant's physician must complete and submit the medical portion of the application. Because the pharmacist is reimbursed for the cost of AZT provided to eligible patients, applicants will also be asked to provide the names, addresses, and telephone numbers of the pharmacies they plan to use.

Information and testing sites

Physicians and others in the medical community who provide care to persons whose sexual or needle-sharing behaviors place them at increased risk for acquiring an HIV infection should be award of the organizations and agencies that provide information, counseling, testing and referral for these individuals. Individuals who could benefit from these services include persons with AIDS, persons infected but asymptomatic, uninfected persons who are concerned about their past high-risk behaviors (worried well), and persons concerned about a family member or friend in one of the previously mentioned high risk groups.

For additional information regarding AIDS and HIV infection, use the following resources:

- The local public health department or public health nurse's office.
- AIDSline, the statewide toll-free hotline; outside the Milwaukee area, call 1-800-334-AIDS; in the Milwaukee area, call 273-AIDS.
- The National AIDS hotline: 1-800-342-AIDS.
- Call, visit or write the AIDS service group of your choice for information and support services related to AIDS and HIV infection:

  Center Project, Inc, 824 S Broadway, Green Bay; 414-437-7400. Monday through Friday, 9 AM to 1 PM. Mailing address: PO Box 1062, Green Bay, WI 54305.

  La Crosse County Health Dept, AIDS-HIV Health Educator, 1707 Main St, La Crosse WI 54601; 608-785-9723. Monday through Friday, 8 AM to 5 PM.

  Madison AIDS Support Network, 23 N Pinckney St, Madison: 608-255-1711. Monday through Friday, 9 AM to 1 PM. Mailing address: PO Box 731, Madison, WI 53701-0731.

  Milwaukee AIDS Project, 315 W Court St, Milwaukee: 414-273-AIDS. Monday through Friday, 9 AM to 9 PM. Saturday and Sunday, 11 AM to 5 PM. Mailing address: PO Box 92505, Milwaukee, WI 53202.

  Central Wisconsin AIDS Network, Marathon County Health Dept, 400 E Thomas St, Wausau, WI 54401: 715-847-5888. Monday through Friday, 8 AM to 5 PM.

  Southeastern Wisconsin AIDS Project, 5830 Third Ave, #101, Kenosha, WI 53140: 414-658-3154. Monday through Friday, 9 AM to 5 PM.

- Counseling and testing. Wisconsin has 46 HIV antibody counseling and testing sites throughout the state. For information to assist you in determining your need for counseling and testing and for referral to a site, please contact your physician, your local public health agency or the AIDSline.
- The American Red Cross. Local chapters have printed and video educational materials and can assist in finding speakers.
- For information regarding school related AIDS and HIV education and services, contact your Local Cooperative Educational Services Area office or the Wisconsin Department of Public Instruction.
- For additional information on national, state, and local resources,

contact: Wisconsin Division of Health, AIDS-HIV Program, PO Box 309, Madison, WI 53701-0309; 608-267-5287.

Persons at increased risk

Gay and bisexual men account for 61% of the reported AIDS cases nationwide, and in Wisconsin they account for 78% of the AIDS cases reported to the Division of Health. Educational materials and organized programs to disseminate information about AIDS and HIV infection have been developed by the Division of Health, gay affiliated organizations and AIDS service groups. Consequently, homosexual men who acknowledge their risk of infection and who have access to this material are generally well-informed about methods to prevent acquisition or transmission of infection.

In contrast, some men who engage in homosexual activities may consider themselves to be heterosexual. Others may be poorly informed about AIDS and HIV transmission or may simply deny their personal risk for infection. Persons in these groups may continue to engage in high-risk behaviors that permit HIV transmission. Confidential HIV antibody testing of persons with risk behaviors, in conjunction with risk reduction counseling, may help to change high-risk behaviors.

In an effort to provide persons at risk of HIV infection with accessible, anonymous or confidential, inexpensive or free HIV antibody testing, the Division of Health has established a network of counseling and testing sites. Currently, 46 sites exist where persons at risk for HIV infections can receive an anonymous test.

In addition to supporting the anonymous HIV testing sites, the Division of Health provides subsidized testing, consultation, and educational and risk reduction materials to select family planning and sexually transmitted disease clinics throughout the state. These sites provide routine HIV risk assessment, counseling and, as appropriate, on-site confidential HIV antibody testing.

Counselors at both the anonymous and confidential test sites have received specific training to provide clients with information, HIV risk assessment, risk reduction messages, a reliable test result, and when appropriate, prompt individual referral to medical and mental health-care providers.

Physicians and other health-care providers should discuss HIV antibody testing with all patients who report risky sexual or drug use practices. Most physicians will order HIV antibody tests and provide counseling for their own patients. This facilitates continuity of care for persons infected and provides for immediate medical evaluation and follow-up.

Occasionally, a clinician may refer a patient to a Division of Health site for antibody counseling and testing. Referral to an anonymous DOH site is appropriate for patients who are particularly concerned about the cost of testing or confidentiality of test results.

IV drug users are at increased risk for infection with HIV as a result of sharing needles and syringes used to inject illicit drugs. Studies conducted in New York and New Jersey indicated that IV drug users who are drug dependent are unlikely to significantly modify their drug using practices without the assistance of substance abuse counselors in a drug treatment program. Nationally, 20% of the reported AIDS cases have been in IV drug users who have no other risk factors; an additional 7% occurred in those who reported homosexual contact and IV drug use. Secondary spread of HIV from IV drug users occurs through sexual transmission or by perinatal transmission to infants.

Health-care providers who identify IV drug use in their patients should strongly encourage them to seek treatment and provide them with referral to an appropriate residential or outpatient drug and alcohol treatment facility. In addition, care providers who perceive that a patient may have an alcohol or non-injecting drug dependency should recognize that use of these substances may impair their judgement regarding unsafe sexual practices. Physicians should also evaluate the appropriateness of referring these patients to substance abuse centers. Patients who use IV drugs, as well as those who use non-IV drugs, should be counseled and assessed to determine the appropriateness of HIV antibody testing.

Physicians and other primary care providers should work with local public health agencies, Division of Health counseling and testing sites and substance abuse treatment center staff to develop appropriate referral lists for patients they identify to be in need of substance abuse treatment and counseling and HIV counseling and testing. For additional information on drug abuse counseling call your local public health agency or the substance abuse treatment center in your community.

Persons with hemophilia and other blood coagulation disorders who used blood products prior to the initiation of heat treatment are at risk for infection with HIV. Approximately 50% to 60% of persons with hemophilia in the United States receive medical care through hemophilia treatment centers or from a hematologist. Information, counseling and referral for persons with hemophilia and their family members or significant others are available from the comprehensive hemophilia centers at the following locations:

- Sacred Heart Hospital, Eau Claire: 715-839-4404 or 839-4418
- St Vincent's Hospital, Green Bay: 414-433-8213
- Webster Clinic, Green Bay: 414-437-0431
- University of Wisconsin Clinical Science Center, Madison: 608-263-1836
- American Red Cross, Madison: 608-233-9300
- Great Lakes Hemophilia Foundation, Milwaukee: 414-344-0772

Physicians of other health-care providers working with hemophilia patients who identify sexual partners wishing to obtain anonymous testing should provide referral to Division of Health HIV counseling and testing sites.

Some persons, when HIV infection is identified, will be concerned and anxious. Persons who indicate, either verbally or through their actions, that they are unable to cope with a positive antibody test result should be promptly referred to a mental health professional for additional evaluation and counseling. Physicians and other health-care providers are encouraged to develop appropriate mental health referral sources to deal with crisis situations as well as psychological evaluation and supportive counseling.

Physicians and other health-care professionals should be aware of the support services available within their communities. The local public health agency can be a valuable source of information and assistance in developing or identifying available social and supportive services such as hospice, home health care, nursing homes, etc. In addition, in many communities the local public health agency staff will either provide AIDS and HIV inservices to a variety of audiences (eg, community groups, law enforcement, businesses and schools) or identify appropriate speakers for inservices.

Family planning sites that provide HIV antibody testing

Clients are routinely assessed for HIV risk behaviors. If risk is identified, the client is provided risk reduction counseling and offered on-site, free and confidential HIV antibody testing.

Southeastern Wisconsin

Planned Parenthood: 414-654-0491 or 654-0492
Diane Roberts, RN, 618 55th St, #1, Kenosha 53140

Sixteenth Street Community Clinic: 414-672-1353
Pat Bartleme, 1032 S 16th St, Milwaukee 53204

Planned Parenthood: 414-544-0708 or 544-0458
Candy Pasterski, W255N499 Grandview Blvd, #301, Waukesha 53188

Planned Parenthood: 414-338-1303 or 338-0666
Wendie Winkleror, 2361 W Washington, West Bend 53095

Southwestern Wisconsin

Southwest Family Planning: 608-348-9766
Billee Bayou, director, 165 W Pine St, Platteville 53818

Northwestern Wisconsin

Health Care Clinic: 715-682-9596
Teri Wennersten, 609 Front St E, Ashland 54806

Polk County Public Health Nursing Service: 715-485-3161
Beverly Larson, RN, director, 914 First Ave N, Balsam Lake 54810

Eau Claire City-County Health Dept: 715-839-4718
James Ryder, director, 720 Second Ave, Eau Claire 54703

Pierce County Community Health Services: 715-273-3531, ext. 291
Raymond Cink, director, 338 W Main St, PO Box 238, Ellsworth 54011

Dunn County Public Health Nursing Service: 715-232-2388
Karen Levandoski, PHN, director, Courthouse, Menomonie 54751

Burnett County Reproductive Health Services: 715-349-2141
Kathleen Harrington, RN, director, Route 1, Box 300-114, Siren 54872

Douglas County Community Health Care Clinic, Inc: 715-394-4117
Carol Reasbeck, director, 2231 Catlin Ave, Superior 54880

Northern and North Central Wisconsin

Barron County Public Health Agency: 715-537-6230
Kathleen Newman, RN, director, 1443 E Division Ave, Barron 54812

St Croix County Human Services: 715-796-2225, ext. 36
Kris Ylikopsa, RN, 455 Davis St, Hammond 54015

Sawyer County Public Health Home: 715-634-4874
Della Schuck, RN, director, 109 East 5th St, PO Box 528, Hayward 54843

Rusk County Public Health Nursing Service: 715-532-2177
Kathleen Mai, PHN, 311 Miner Ave E, Ladysmith 54848

NEWCAP, Inc: 414-834-4621
Sharon Fellion, Family Planning Program, 1201 Main St, Oconto 54153

Price County Public Health Nursing, Phillips Service and Home Care Agency: 715-339-3054
Charlene Jebens, RN, Courthouse, Philips 54555

Oneida County Nursing Service: 715-369-6111
Kathryn Sutliff, RN, director, Courthouse, PO Box 400, Rhinelander 54501

Vilas County Health Services, Inc: 715-479-3357
Phyllis Dicka, director, Hwy 70 W, PO Box 456, St Germain 54558

Family Planning Health Services, Inc: 715-359-8300
Lon Newman, director, 908 Grand Ave, Schofield 54476

Washburn County Nursing Agency: 715-635-7616
Billie LaBumbard, director, 222 Oak St, Spooner 54801

Wisconsin anonymous HIV counseling and testing sites

The sites listed below do not require clients to provide a name or other identifying information. Sites in general require that appointments be made. To schedule an appointment, clients should call the appropriate clinic at the number indicated. Only a first name will be requested.

Southeastern Wisconsin

Kenosha City Health Dept: 414-656-8170
Ted Leinenweber, 625 52nd St, Kenosha 53142

Kenosha County Health Dept: 414-656-6434
Esther Alexanian, RN, director, 3418 Washington Rd, Kenosha 53142

Brady East STD Clinic:
414-272-2144 or 414-272-2437
Jeff Miller or Dave Cadle, 1240 E Brady St, Milwaukee 53202

STD Specialties Clinic, Inc: 414-272-4304
Pat Weber or Carl Maddox, 1240 E Brady St, Milwaukee 53202

**Marquette University Student Health Services*:
414-224-7184
Harold Dobbs, MD, or Debbie Stone-Marks, Schroeder Complex, Milwaukee 53233

Continued on next page

Reproduced in the WMJ in 1949, this cartoon was originally published in 1816.

Milwaukee Health Dept:
414-278-3621 or 414-278-3616
Tom Schlenker, MD, Kathy Fessler or Liz Zelazek, 841 N Broadway, Milwaukee 53202

Planned Parenthood: 414-271-8181
Elise Wawrzyn, 1135 W State St, Milwaukee 53233

Sixteenth Street Community Clinic: 414-672-1353
Isle Soriano, 1032 S 16th St, Milwaukee 53204

South Side Health Center: 414-226-8620
Kathy Fessler, 1640 S 24th St, Milwaukee 53204

University of Wisconsin–Milwaukee Student Health Service: 414-229-4716
William K. Hoffman, MD, director, or Patricia Rice, Norris Health Center, Box 413, Milwaukee 53201

Racine Health Dept: 414-636-9498
Jackie Evans, 730 Washington Ave, Racine 53403

Sheboygan City Health Dept: 414-459-3485
Sol Belinky, City Hall Annex, 709 N 7th St, Sheboygan 53081

Waukesha County Health Dept: 414-549-3012
Char Crabb, 325 E Broadway, Waukesha 53186

* *West Allis Health Dept STD Clinic*: 414-256-8380
Mary Rutenbeck, 7120 W National Ave, West Allis 53214

***De Paul Rehabilitation Hospital*: 414-272-4407
Pat Weber, 4143 S 13th St, Milwaukee 53221

***Milwaukee County Methadone Program*:
414-257-5980
Pat Weber, 854 N 94th, Wauwatosa, 53226

** *Wisconsin Residential Drug Treatment Center*:
414-263-4481
Pat Weber, 2105 N Booth St, Milwaukee 53212

South central and southwestern Wisconsin

**Beloit College Student Health Services*:
608-365-3391, ext. 331

Beloit Stateline Clinic: 608-364-6630 or 815-389-3583
Maureen Churchill, 1701 Blackhawk Blvd, South Beloit, IL 61808

Rock County Health Department: 608-755-2640
Matthew Haeger, Beta Building, N Parker Dr, PO Box 1143, Janesville 53547

Grant County Public Health Nursing Service:
608-723-6416
Diane Pearce, Courthouse, Lancaster 53813

Blue Bus Clinic: 608-262-7330
Tim Tillotson, 1552 University Ave, Madison 53705

Dept of Public Health: 608-246-4516 or 608-246-4858
Mary Jo Hussey, 1954 E Washington Ave, Madison 53704

Northeast Family Medical Center: 608-241-9020
Susan Skochelak, MD, 3209 Dryden Dr, Madison 53704

Planned Parenthood: 608-244-5519
Kris Zastrow, 233 North St, Madison 53704

University of Wisconsin–Platteville Student Health Services: 608-342-1891
Paul Grossberg, MD, 725 W Main St, Platteville 53818

Verona Family Practice Clinic: 608-845-9531
Will Scheibel, MD, 524 W Verona Ave, Verona 53593

Northeastern Wisconsin

Planned Parenthood:414-731-6304
Susan Pinsonnault, 508 W Wisconsin Ave, Appleton 54911

Fond du Lac County Public Health Nursing Service:
414-929-3085
Diane Cappozzo or Kathy Paully, 160 S Macy St, Fond du Lac 54935

Center Project, Inc: 414-437-7400
Julie Thompson or Kathy Rhode, 824 S Broadway, Green Bay 54303

Fox Cities Extension: 414-733-2067 or 414-733-2068
2003 N Meade St, Appleton 54911

* *University of Wisconsin–Oshkosh Student Health Services*: 414-424-2424
Penny McElroy, 777 Algoma Blvd, Oshkosh 54901

Winnebago County Public Health Dept:
414-235-5100 or 414-725-2653
Marsha Brightman or Kathy Lloyd, 725 Butler Ave, PO Box 68, Winnebago 54985

Northwestern Wisconsin

Eau Claire City-County Health Dept: 715-839-4718
Jim Ryder, 720 Second Ave, Eau Claire 54703

La Crosse County Health Dept STD Clinic:
608-785-9723
Al Graewin, 1707 Main St, La Crosse 54601

* *University of Wisconsin–La Crosse Student Health Service*: 608-785-8559
Peggy Agger, 1725 State St, La Crosse 54601

University of Wisconsin–River Falls Student Health Services: 715-425-3292
Helen Ensign, 409 Spruce St, River Falls 54022

Northern and north central Wisconsin

Iron County Public Health Nursing Service: 715-561-2191
Judith Kunath, RN, director, Courthouse, 300 Taconite St, Hurley 54534

Price County Public Health Nursing Service and Home Care Agency: 715-339-3054
Charlene Jebens, RN, director, Courthouse, Phillips 54555

Oneida County Nursing Service: 715-369-6111
Diane Kunda, PO Box 400, Rhinelander 54501

Portage County Health Dept: 715-345-5350
Cindy Schmitz, 817 Whiting Ave, Stevens Point 54481

**University of Wisconsin–Stevens Point Student Health Services*: 715-346-4646
Jim Zach, MD, Delzell Hall, Stevens Point 54481

Douglas County Health Dept: 715-394-0404
Nancy Hodsdon, City-County Complex, 1409 Hammond Ave, Superior 54880

Marathon County Health Dept: 715-847-5888
Toni Case, 400 E Thomas St, Wausau 54401

Wood County Health Dept: 715-421-8525
Robert Newman, RS, Courthouse, 400 Market Square, Wisconsin Rapids 54494

Wood County Health Dept: 715-387-8646
Ann Reusch, Marshfield Office Annex, 604 E Fourth St, Marshfield 54449

*These sites will provide HIV antibody counseling and testing services to their campus community or city residents only.
**Testing at these sites is generally limited to IV drug users in-patient and outpatient at these facilities.

Wisconsin's partner referral program

Partner notification and referral is a vital strategy in controlling sexually transmitted diseases (STDs). The goal is to break the chain of disease transmission by early identification and treatment of asymptomatic persons who have been sexually exposed to an STD and are, therefore, at risk of being infected and infective. Although currently no curative therapy exists for persons infected with human immunodeficiency virus (HIV), the public health goal of partner notification for HIV is the same as for other STDs—that is, to break the HIV transmission cycle. This may be accomplished by identifying and counseling those who may have been infected with HIV, offering them testing to learn their HIV antibody status, and referring them to available medical and social services. Persons who are HIV infected will be guided to receive services that may extend or improve their quality of life. Persons who are not HIV infected should be reached in such a way that sustained prevention of HIV infection is achieved through appropriate changes in behavior that may have placed them at risk.

Recommendations encouraging public health officials to implement HIV-related partner notification activities have been made by the Center for Disease Control, Surgeon General C. Everett Koop, the Association of State and Territorial Health Officers, and the AMA. In Wisconsin, similar recommendations have been made by the Wisconsin Public Health Task Force on AIDS and the SMS Task Force on AIDS.

Based on the specific recommendations of the Wisconsin Public Health Task Force on AIDS, and funding and staffing support included in the Wisconsin 1987–88 biennial budget, the AIDS-HIV program implemented the Wisconsin HIV Partner Referral Program in July 1988. The following is a description of the program.

Principles of the Partner Referral Program

Self-referral of partners. The primary focus of the Partner Referral Program will be to provide assistance and guidance to HIV infected persons in developing a prevention plan that includes the notification of known sexual or needle-sharing partners. Whenever possible, HIV infected persons will be encouraged to refer their partners. As with other programs that focus on control of STDs, that will not always be possible, nor will it always be the preference of the infected person.

Voluntary participation. Participation in the partner referral process is voluntary; index patients (persons known to be infected with HIV) may decline involvement in the partner notification services. The disclosing of names of partners is voluntary. Counseling and referral services will be available to index patients regardless of whether they choose to disclose names of their partners. Counseling, testing, and referral services are also voluntary for named partners.

Confidential information. The index patient's name and other identifying information (dates of exposure, city of origin) are never revealed to a partner. All name identifying partner information will be destroyed upon completion of the notifying process which is limited to 60 days from the date when the names were collected. AIDS and HIV infection surveillance reports, which are statutorily mandated, will continue to be maintained confidentially according to HIV surveillance program protocol.

Personal notification of partners. Whenever possible, the named partners of an HIV infected individual will be notified in person of risk exposure. Personal contact with the named partner enables the counselor to assess how the individual manages the information, provide support, furnish the individual with written referral for counseling and testing, or assist the individual in scheduling an appointment for counseling and testing.

Accessibility of services. Partner referral services will be made available to all HIV-infected persons reported to the AIDS and HIV surveillance program after July 1, 1988. Persons reported by name or who were tested at an anonymous testing site before that date have access to the Partner Referral Program by calling the program staff.

Partner Referral Process
(name associated)
Three state staff members are available to provide partner referral services to all persons with an HIV infection reported to the AIDS surveillance program. The following steps will be followed upon receiving a name associated case report:

Step 1. State staff will call the physician submitting the AIDS or HIV case report to request permission to contact the patient. If permission is denied, case follow-up will not be initiated.

Step 2. If permission to provide follow-up services has been granted, state staff will contact the index patient by telephone or home visit to set up an appointment for counseling and to discuss partner notification. Interviews will be conducted at a time and in a setting that is comfortable and convenient for the index patient. The index patient may decline to meet with the state staff.

Step 3. All HIV-infected persons who request program services will be offered information regarding the importance of medical evaluation and follow-up. In addition, they will be provided with referral to a support group and other related supportive services and an individualized risk reduction plan to prevent the transmission of HIV to others.

Step 4. Whenever possible, the index patient will be encouraged to refer partners and will be provided the necessary training and support. Although circumstances vary, generally only the partners exposed during the 12 months preceding the positive HIV test are notified.

Step 5. State staff will attempt to locate each named partner and a) inform the partner of his or her exposure and risk for HIV infection, b) provide verbal and written information about HIV infection and HIV antibody testing, c) furnish the partner with a referral for HIV antibody counseling and testing, and d) develop a personalized plan for safer sexual practices and HIV risk reduction methods. Under no circumstances will the partner be told the name of the index patient, the date or period of exposure, or any other potentially identifying information.

Partner Referral Process
For persons identified as HIV-infected at an anonymous DOH-designated counseling and testing site (CTS).
Persons tested at one of 46 anonymous CTS located throughout Wisconsin are not reported to the AIDS-HIV program by name, therefore, it is not directly possible for state staff to offer partner referral services to these individuals. However, counselors at the CTS will provide all HIV-infected clients with information about the Partner Referral Program and will encourage them to contact the state staff. These persons may then have access to partner referral services by directly contacting state staff. The HIV-infected client who requests partner referral services may, if he or she wishes, continue to remain anonymous.

Physician participation and responsibilities
Physicians testing patients for antibody to HIV are responsible for ensuring that: a) signed informed consent is obtained, b) the patient receives pre- and post-test counseling, c) those patients testing positive are provided or referred for appropriate medical and psychosocial support services, and d) the case is reported to the State Epidemiologist. Physicians should advise patients with positive HIV tests that it is important to inform sexual or needle-sharing partners of their risks of HIV infection, and to encourage partners to seek counseling and testing. In addition, physicians should inform their HIV-infected patients that the state offers assistance in partner referral and should seek permission from such patients to allow state staff to contact them.

State partner referral program staff
- Michelle Dumanch, public health educator, lead worker, provides services to the entire state: Madison, 608-266-0682.

- Michael McFadden and Juana Sabatino, public health educators, provide services to southeastern Wisconsin: Milwaukee, 414-266-8620, ext 342.

- Overall direction and consultation to the program is provided by Dr James Vergeront, AIDS-HIV Program director, and Holly Dowling, public health educator: 608-267-5287.

Expansion of Partner Referral Program

Expansion of the PRP into local public health agencies has been initiated. Six agencies have been selected based on the following criteria: the availability of staff who have experience in HIV counseling and testing at anonymous sites within their agency, the number of persons needing partner referral services residing in their service areas, and experience working with issues of confidentiality. Representatives of the La Crosse, Eau Claire, Marathon, Rock, and Waukesha county health departments, and the City of Madison Health Department have been trained, and as of Jan 1, 1989, became responsible for the partner referral services in their respective areas. The PRP lead worker will monitor local public health agency partner referral service activities on a continuing basis.

AMA policy on treating AIDS patients

In 1987, the AMA's Council on Ethical and Judicial Affairs concluded that "a physician may not ethically refuse to treat a patient whose condition is within the physician's current realm of competence solely because the patient is seropositive (to the AIDS antibody)."

The AMA report, entitled "Ethical Issues Involved in the Growing AIDS Crisis," said, "The tradition . . . is that: 'when an epidemic prevails, a physician must continue his labors without regard to the risk of his own health.'

". . . . AIDS patients are entitled to competent medical service with compassion and respect for human dignity and to the safeguard of their confidences within the constraints of the law. Those persons who are afflicted with the disease or who are seropositive have the right to be free from discrimination."

The council's new opinion on physicians and infectious disease is: "A physician who knows that he or she has an infectious disease should not engage in any activity that creates a risk of transmission of the disease to others."

Briefly, statements adopted by the council include:

- Physicians are dedicated to providing competent medical service with compassion and respect for human dignity.
- Physicians who are unable to provide the services required by AIDS patients should make referrals to those physicians or facilities equipped to provide such services for these patients.
- Physicians are ethically obligated to respect the rights of privacy and of confidentiality of AIDS patients and seropositive individuals.
- Where there is no statute that mandates or prohibits the reporting of seropositive individuals to public health authorities and a physician knows that a seropositive individual is endangering a third party, the physician should: attempt to persuade the infected patient to cease endangering the third party; if persuasion fails, notify authorities; and, if the authorities take no action, notify the endangered third party.
- A physician who has AIDS, or who is seropositive, should consult colleagues as to which activities the physician can pursue without creating a risk to patients.

SMS members should be aware that Wisconsin has a comprehensive statute regarding AIDS and HIV antibody testing and reporting, which allows physicians to disclose the results of tests for the presence of an antibody to HIV to the state epidemiologist, for the purpose of providing epidemiologic surveillance or investigation and control of communicable disease. Wisconsin statutes also provide for civil or criminal penalties against individuals who disclose these test results in violation of state statutes.

A complete explanation of AIDS and HIV antibody testing and reporting requirements in Wisconsin can be found elsewhere in this issue of the *WMJ*.

SMS member physicians interested in obtaining a copy of the report of the Council of Ethics and Judicial Affairs may contact the SMS Division of Communications at 1-800-362-9080.

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-man expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact D. L. Lawrence, Medical Director at Sharpe Clinic, SC, 92 East Division St, Fond du Lac, WI 54935. Phone number 414-921-0560, collect. p3–8/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

Family practice (BC/BE). Excellent opportunity to join a busy and progressive, 5-physician family practice group in south central Wisconsin. In addition to the growing city of 15,000 being located on a lake in an excellent recreational area it also has its own full array of cultural events. Nearby metropolitan areas include Madison (50 min) and Milwaukee (70 min). Excellent medical community with modern 100-bed hospital, full-time ER and ready access to most subspecialties. Guaranteed first year salary with incentive bonus and opportunity for ownership after one year. Excellent fringe benefits include moving expense, insurance, CME, etc. Contact Chad Burchardt, Business Manager, Medical Associates of Beaver Dam SC, 1200 N Center St, Beaver Dam, WI 53916; ph 414-887-7101. p7–9/89

Antigo, Wisconsin. Seeking director, full-time and part-time emergency physicians for low volume facility located in sportsman's paradise. Excellent compensation and paid malpractice insurance. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, #36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p7/89

RATES: 50¢ per word, with a minimum charge of $20.00 per ad. BOXED AD RATES: $25.00 per column inch. *All ads must be prepaid.*

DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg*, copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Orthopedic surgeons, Wisconsin. Marshfield Clinic, a multi-specialty group practice with over 300 physicians, is seeking BE/BC orthopedic surgeons to join expanding regional centers. Positions available in two locations; one in northwestern Wisconsin within 90 miles of Minneapolis and one, a group practice of 25 physicians, in north central Wisconsin approximately 1½ hours from Lake Superior. Communities offer exceptional recreational, cultural, and educational opportunities. Compensation package with starting salary up to $149,100 combined with outstanding fringe benefit package totals in excess of $200,000. There is no buy-in or start-up expense. Send CV and references to: David L. Draves, Director Regional Development, 1000 N Oak Ave, Marshfield, WI 54449 or call collect at 715-387-5376. 7/89

We are looking for well-motivated PAs, which we will fully train in the treatment of venous diseases. Great patient rapport and manual dexterity a must. Excellent working conditions. Monday to Friday 40+ hour work week. No call. No weekends. Very competitive salary plus bonus and benefits. Required NYS Registration and Certification. If you are interested please contact Donna Lisciandro at 212-249-7612 or Dr Stodolski at 212-876-9284. Please send CV to Donna Lisciandro, 430 E 66th St, New York, NY 10021. 7–9/89

Family practice, Marshfield Clinic. A multi-specialty group practice with over 300 physicians, is seeking BE/BC family practitioners to join expanding regional centers. Practice opportunities range in size from single specialty groups of three to multi-specialty groups of 25. Positions available in six locations: two in northwestern Wisconsin within 70 and 90 miles of Minneapolis; two in north central Wisconsin within 80 and 90 miles of Lake Superior; and two in central Wisconsin within 25 and 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe benefit package outstanding. Send CV and references to: David L. Draves, Director Regional Development, 1000 N Oak Ave, Marshfield, WI 54449 or call collect at 715-387-5376. 7/89

Lake Winnebago, Wisconsin area. Seeking director, full-time and part-time emergency physicians for low volume 60-bed hospital. Attractive compensation, full malpractice insurance coverage and benefit package available. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, #36, Traverse City, MI 49684; 1-800-253-1795 in Michigan 1-800-632-3496. p7/89

Nephrologist. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 7tfn/89

Family practitioner to associate with a highly successful two-physician (one physician near retirement) rural family health center with an excellent support staff and unlimited potential. Complete fee-for-service practice with excellent hospitals and specialty support only minutes away. Guaranteed salary, incentives and benefits tailored to fit your needs. Located 15 minutes from a major metropolitan area and 30 minutes from the joys of Door County. Interested physicians please contact: J.C. Majeski, Clinic Mgr, Luxemburg Medical Clinic, PO Box C, Luxemburg, WI 54217; 414-845-2351. p7–9/89

General internist, Marshfield Clinic. A multi-specialty group practice with over 300 physicians, is seeking BE/BC general internists to join expanding regional centers. Practice opportunities range in size from multi-specialty groups of 11 to 25. Positions available in three locations. One in northwestern Wisconsin, 90 miles from Minneapolis; one in north central Wisconsin in close proximity to the UP of Michigan and Lake Superior, and one in central Wisconsin within 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,000. Fringe benefit package is outstanding. Send CV and references to: David L. Draves, Director Regional Development, 1000 N Oak Ave, Marshfield, WI 54449 or call collect 715-387-5376. 7/89

Family practice opportunities in a group setting. Located in a family-oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, president & CEO, Clintonville Community Hospital, 35 N Anne St, Clintonville, WI 54929; ph 715-823-3121. p7–12/89

Emergency medicine, Dubuque. Opening available for qualified individual to join incorporated group of three BE/BC emergency physicians. Unique and enjoyable practice, excellent compensation, complete career opportunities, and highly livable community. Write NET,PC c/o Mercy Health Center, Emergency Department, Dubuque, IA 52001, or call Mark Singsank, MD; ph 319-589-9666. p7–9/89

Physicians Exchange

continued

Pediatrics. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 7tfn/89

Aspen Medical Group, an independent, multi-specialty group with eight clinic locations in the Minneapolis and Saint Paul metropolitan area, seeks BC/BE associates in family practice, internal medicine, pediatrics, obstetrics/gynecology, orthopedic surgery, and urgent care. Excellent benefits, reasonable call and clinic responsibilities, highly competitive income potential. Contact: Maureen Reed, MD, Chief of Staff, Aspen Medical Group, 1020 Bandana Blvd, West, Suite 100, Saint Paul, MN 55108; ph 612-641-7178. 7-9/89

Family practice opportunity. The University of Illinois College of Medicine at Rockford is developing a family practice group in a northern Illinois community. Major midwestern cities and recreational areas within driving distance. University and local hospital will provide all facilities, staff, and business systems to support successful practice. Outstanding opportunity for professional fulfillment, community involvement, and personal recognition. Faculty appointment, exceptional university benefits and salary guarantee. Inquiries/CVs to Dr L.P. Johnson, Department of Family and Community Medicine, University of Illinois College of Medicine at Rockford, 1601 Parkview Ave, Rockford, Ill 61107. The University of Illinois is an Equal Opportunity Employer. 6-7/89

Family practice (with emphasis on urgent care and/or occupational medicine BC/BE to join established 55-physician multi-specialty group located in the Milwaukee, Wisconsin area. Competitive salary and excellent fringe benefits. Address inquiries and CVs to: James Wrocklage, Medical Associates, PO Box 427, Menomonee Falls, WI 53051. p5-7/89

Student health. Opening for primary care internist or family physician available immediately. Accredited facility provides medical services for 18,000 students. Full-time 11 month position. Competitive salary/benefit package and 40 hour week. Illinois license and board eligible/certified. Search continued until position filled. Contact Glenn Weiss, MD, Student Health Service, Illinois State University, Normal, Ill 61761, 309-438-8655. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer. 7-9/89

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multi-specialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Stuart R. Lancer, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. c4;p5-7;8-10/89

Minneapolis—BC/BE family practitioner or other specialty with emergency room experience sought for the urgent care department of a large multi-specialty group in desirable Twin Cities location. Our medical clinic is a highly reputable, well-established clinic that has been in existence for over 38 years. Salary and benefits are highly competitive. Regular work week expectation without night call or hospital obligation. Send CV and letter of inquiry to Patrick Moylan, Park Nicollet Medical Center, Minneapolis, MN 55416. 6-7/89

Northern Wisconsin

Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

NEW PHYSICIANS FOR WISCONSIN

is seeking

- Family Physicians
- Pediatricians
- Orthopedic Surgeons
- Internists

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7-12/89;1-6/90

Beloit Clinic, SC, an expanding multi-specialty group in southern Wisconsin college town is seeking a physiatrist and orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J. F. Ruethling, Administrator, 1905 Huebbe Pkwy, Beloit, WI 53511; ph 608-364-2200. 7-9/89

Family practice-internal medicine-OB/GYN

Attractive opportunities (many on lakes) for BC/BE physicians in Michigan, Wisconsin, and Indiana. Contact Bob Strzelczyk to discuss your practice requirements and these positions.

Strelcheck & Associates, Inc
12724 N Maplecrest Lane
Mequon, WI 53092
800-243-4353;
414-243-9500 WI (collect) p7-8/89

CHICAGO/ ST. LOUIS

Superbly trained Internists and Family Practitioners, BC/BE, wanted for innovative practice building and practice ownership opportunities in the Chicago and St. Louis environs. Management support in a fee-for-service setting is provided. Compensation includes a competitive income guarantee with substantial bonus incentive.

To express interest, send your CV to:

Lori Jones
MedFirst Medical Management, Inc.
5515 N. Cumberland Avenue
Suite 808
Chicago, Illinois 60656
Or call, **COLLECT:**
(312) 774-3443

MedFirst SM
Medical Management, Inc.

Physicians Exchange

continued

Pediatric partner needed. Small town atmosphere, populous drawing area. National honors school. University town, 50 miles from Chicago. Economics, greatest per capita income in state. Malpractice, lowest rates in nation. Pediatric practice, 25 years, still expanding. Office is spacious suite in 4-year-old medical building, other specialties associates, lab and x-ray. Near all-service hospital with superior neonatal unit. Send CV and practice goals to: Thomas J. Covey, MD, FAAP, 2101 Comeford Rd, #3, Valparaiso, IN 46383.
p5/89;6–7/89

Seymour Family Medicine looking for second BC/BE family physician for rapidly growing clinic practice in small town 20 minutes from Green Bay and Appleton hospitals. Four-member FP call coverage; on-site lab, x-ray, OP rehab in new facility. Salary guarantee, excellent benefits, practice management assured. Send CV or call Shirley Mielke, Seymour Family Medicine Clinic, 958 Foote St, Seymour, WI 54165; 414-833-2318.
5–7/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935.
9tfn/87

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401.
p4tfn/88

Part-time challenges await you with one of the world's best trained health care systems. As a member of the Wisconsin Army National Guard you will be appointed as a commissioned officer. You will be eligible for benefits such as paid CMEs, free air travel, exchange and commissary privileges, along with retirement annuity. You may also qualify for the Health Professional Loan Repayment of $3,000 per year to a total of $20,000. For just 16 hours a month plus two weeks a year, you can become a member of a special organization of talented colleagues working together, exchanging ideas, solving problems, and strengthening your community. For more information contact Major Robert Klinger at 608-241-6367 or 241-6431 or at 3506 Memorial Drive, Madison, WI 53704-1199. Toll-free 1-800-362-7444.
6–7/89

Family practice—Hospital sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful northcentral Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to and benefit package which is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Dr, Bloomington, MN 55435; ph 612-835-5123.
5–7/89

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406.
11tfn/87

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700.
12tfn/88

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563.
10tfn/88

Northern Wisconsin
Pediatric physician to join multispecialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Northern Wisconsin
Family Practice physician to join multispecialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Family practitioner to join three physician group in Lake Mills on Interstate 94 and beautiful Rock Lake in southern Wisconsin. Resort area. Competitive salary and fringe benefits. Contact H. Leering, MD, 120 E Oak St, Lake Mills, WI 53551; ph 414-648-2391. p6–10/89

Eagle River—Great opportunity for two BC/BE family practice physicians to join well-established practice. Guaranteed annual income and future partnership available. For more information, send resume to Judy Harris, Recruiter, UW Office of Rural Health, 810 University Bay Dr, Madison, WI 53705 or call collect 608/263-7933.
1tfn/88

General surgeon, BC/BE w/thoracic and/or vascular interest to replace surgeon in eight-member group in SE Wisconsin. Competitive salary and benefit package. Partnership after one year. Send CV and brief letter of expectations to Oakbrook Family Physicians SC, 1201 Oak St, West Bend, WI 53095. p6–8/89

Madison, Wisconsin. Family practice physician to join our dynamic multispecialty clinic. Guaranteed salary, profit sharing, excellent fringe benefit package. Send CV to L. C. Bernhardt, MD, Chairman, Recruiting Committee, Dean Medical Center, 1313 Fish Hatchery Rd, Madison, WI 53715. An Equal Opportunity/Affirmative Action Employer. 5–7/89

Physicians Exchange

continued

Family practice-internal medicine, Minnesota. Family physicians seek internist and family physician. Excellent opportunity, compensation, and benefit package. Family oriented community with outstanding quality of life, educational, and recreational facilities; easy access to Metro area. Contact: Mary Jo Cordes, MDsearch, PO Box 16458, St Paul, MN 55116. 7/89

Emergency medicine–Dubuque. Opening available for qualified individual to join incorporated group of three BE/BC emergency physicians. Unique and enjoyable practice, excellent compensation, complete career opportunities, and highly livable community. Write NET,PC, c/o Mercy Health Center, Emergency Department, Dubuque, IA 62001, or call Mark Singsank, MD; ph 319-589-9666. p6–8/89

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

For Sale. Internal medicine practice suburban metro Milwaukee, Wisconsin. Well-established growing IM practice in great location, near hospital. Tremendous opportunity for dynamic person to purchase goodwill, patient records, medical equipment and possibly A/R. Excellent coverage. Contact: Barton-Collins, Ltd, 9401 W Beloit Road, #313, Milwaukee, WI 53227; ph 414-541-6099. 6–7/89

Urgent care-occupational. Park Crest Medical Clinic, a multi-specialty clinic in suburban Milwaukee, has an immediate opening for a physician to serve its occupational and urgent care needs. For more information please contact Wayne H. Merchle, 2665 S Moorland Rd, New Berlin, WI 53151; ph 414-786-1199. 7–8/89

Unsecured signature loans for physicians, $5,000 to $60,000. Use for any purpose including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments. Up to six years to repay. No prepayment penalties. Call 1-800-331-4952, Medi-Versal, Department 356. 5tfn/89

Internist. Ramsey Clinic, a 215-physician multi-specialty group practice located in St. Paul, Minn, has an immediate opening available for a primary care internist at one of the suburban clinic locations. The chosen candidate will be joining a staff made up of two other internists, two family medicine physicians, and two pediatricians, as well as consultants representing other specialties and sub-specialties. An opportunity exists for teaching on an in-patient service. Interested candidates should forward their curriculum vitae in confidence to: Karen R. Steiner, MD, Lead Physician, Ramsey Clinic–Maplewood, 1774 Cope Ave, Maplewood, MN 55109. Equal Opportunity Employer. 7/89

Medical Meetings—Continuing Medical Education

July 20–22, 1989: Wisconsin Society of Obstetrics & Gynecology 1989 Annual Meeting, at Radisson Hotel, La Crosse. Info: WSOG, 850 Elm Grove Rd, Elm Grove, WI 53122. g1–7/89

July 27–29, 1989: Critical Care Update '89, sponsored by Berlin Hospital Association, at Heidel House Conference Center, Green Lake. Info: Berlin Hospital Association, Medical Conference 225 Memorial Dr, Berlin, WI 54923; ph 414/361-1313, ext 264. g4–7/89

Orthopedic Conference:
New Perspectives in Pediatric Orthopedics, An Update

October 5–7, 1989

Landmark Resort, Egg Harbor, Wisconsin

Speakers:
- Alan L. Breed, MD, Madison, WI
- Alvin H. Crawford, MD, Cincinnati, OH
- Paul Esposito, MD, Omaha, NE
- John J. Hugus, MD, Marshfield, WI
- Walter W. Huurman, MD, Omaha, NE
- F. Stig Jacobsen, MD, Marshfield, WI
- David C. Mann, MD, Madison, WI
- H. A. Peterson, MD, Rochester, MN
- George W. Simons, MD, Milwaukee, WI
- John G. Thometz, MD, Milwaukee, WI
- Virginia Garnett-Wintersteen, MD, La Crosse, WI

Further information: Marshfield Clinic, Office of Medical Education, 1000 North Oak Ave, Marshfield, WI 54449; ph 715-387-5207. 5–8/89

September 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. g6–8/89

September 11–13, 1989 (Maryland): "Treatment of destructive behaviors in persons with developmental disabilities," at Masur Auditorium, Bethesda. Sponsored by the National Institute of Child Health and Human Development of NIH, the National Institute of Mental Health of the Alcohol and Drug Abuse and Mental Health Administration, the Bureau of Maternal and Child Health of the Health Resources and Services Administration, and by the NIH Office of Medical Applications of Research. This open forum will focus on the various treatments and approaches used to modify or eliminate destructive behaviors in persons with developmental disabilities. Info: Ms Barbara McChesney, Prospect Associates, 1801 Rockville Pike, #500, Rockville, MD 20852; ph 301-468-6555. g7–8/89

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

OTHER MEETINGS in the United States are published in the first issue of each month of the *Journal of the American Medical Association.*

Medical Meetings—Continuing Medical Education

continued

August 2–6, 1989: International Doctors in Alcoholics Anonymous annual meeting, at the Marriott Rivercenter Hotel, San Antonio, Tex. Info: IDAA, 7250 France Ave, S, Suite 400C, Minneapolis, MN 55435. g6-7/89

September 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay. g6-8/89

October 13–15, 1989: Wisconsin Radiological Society Annual Meeting, Concourse Hotel, Madison. g2tfn/89

November 26–December 1, 1989 (Illinois): 75th Scientific Assembly and Annual Meeting of the Radiological Society of North America, at McCormick Place in Chicago. 7-10/89

AMA

DECEMBER 3–6, 1989: Interim House of Delegates, Honolulu, HI.

JUNE 24–28, 1990: Annual AMA House of Delegates, Chicago, IL.

DECEMBER 2–5, 1990: Interim House of Delegates, Orlando, FL.

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American Heart Association

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Wisconsin Specialty Society Meetings: 1989

Wisconsin Society of Obstetrics & Gynecology, July 20–22, 1989, Radisson Hotel, La Crosse.

Wisconsin Society of Anesthesiologists, Sept 8–10, Lake Lawn Lodge, Delavan.

Wisconsin Society of Internal Medicine, Sept 14–16, 1989, Embassy Suites, Green Bay

Wisconsin Radiological Society Annual Meeting, Oct 13–15, 1989, Concourse Hotel, Madison.

Books Received

New books received are acknowledged in this section. From these books, selections will be made for reviews in the interest of the readers and as space permits. Reviews are written by members of the faculty of the University of Wisconsin Medical School and others who are particularly qualified. Most books listed here will be available on loan from the State Medical Society of Wisconsin.

Reproduction Laws for the 1990s. Edited by Sherrill Cohen and Nadine Taub. The Humana Press Inc, Crescent Manor, PO Box 2148, Clifton, New Jersey 07015. 1989. Pp 458. Price: $34.50.

What Is a Person? Edited by Michael F. Goodman. The Humana Press Inc, Crescent Manor, PO Box 2148, Clifton, New Jersey 07015. 1988. Pp 326. Price: $29.50.

The Barbara Kraus 30 Day Cholesterol Program. By Barbara Kraus. The Putnam Publishing Group, 200 Madison Ave, New York, New York 10016. 1989. Pp 124. Price: $6.95.

State Medical Society of Wisconsin

Dates and locations of ANNUAL MEETINGS 1989–1993

All meetings will be held in Milwaukee at the Milwaukee Exposition and Convention Center and Arena (MECCA) and the new Hyatt Regency as the headquarters hotel, unless otherwise indicated.

1990—April 26–28: Green Bay Convention Center, Embassy Suites
1991—April 18–20: Milwaukee Wyndham Hotel
1992—April 23–25
1993—April 15–17: La Crosse Convention Center, Radisson
1994—April 14–16: Milwaukee

Meetings days will be Thursday and Friday; the first session of the House of Delegates will convene on Thursday, the second and third on Friday. Scientific programming will be on Friday and Saturday.

Further information: Commission on Continuing Medical Education, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701. Local Telephone: 257-6781; toll-free in Wisconsin: 1-800-362-9080.

Carlton Fredericks' Sodium Counter. By Carlton Fredericks, PhD. The Putnam Publishing Group, 200 Madison Ave, New York, New York 10016. 1989. Pp 123. Price: $6.95.

The Broad Range of Clinical Use of Phenytoin, by Barry H. Smith, MD, PhD, Samuel Bogoch, MD, PhD, and Jack Dreyfus. Dreyfus Medical Foundation, 767 5th Ave, New York, NY 10153. 1988. Pp 252.

A Remarkable Medicine Has been Overlooked, by Jack Dreyfus. Dreyfus Medical Foundation, 767 5th Ave, New York, NY 10153. 1988. Pp 168.

Parents for Children, Children for Parents: The Adoption Alternative, by Laraine Masters Glidden. AAMR/Publications, 1719 Kalorama Rd, NW, Washington, DC 20009. 1989. Pp 224. $21

Community Living Skills: A Taxonomy, by Richard B. Dever. AAMR/Publications, 1719 Kalorama Rd, NW, Washington, DC 20009. 1989. Pp 168. $21

The Treatment of Severe Behavior Disorders: Behavior Analysis Approaches, edited by Ennio Cipani. AAMR/Publications, 1719 Kalorama Rd, NW, Washington, DC 20009. 1989. Pp 206. $21

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PBBS Equipment Corp. 138
Physicians Insurance Company of Wisconsin 31
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Limbitrol®
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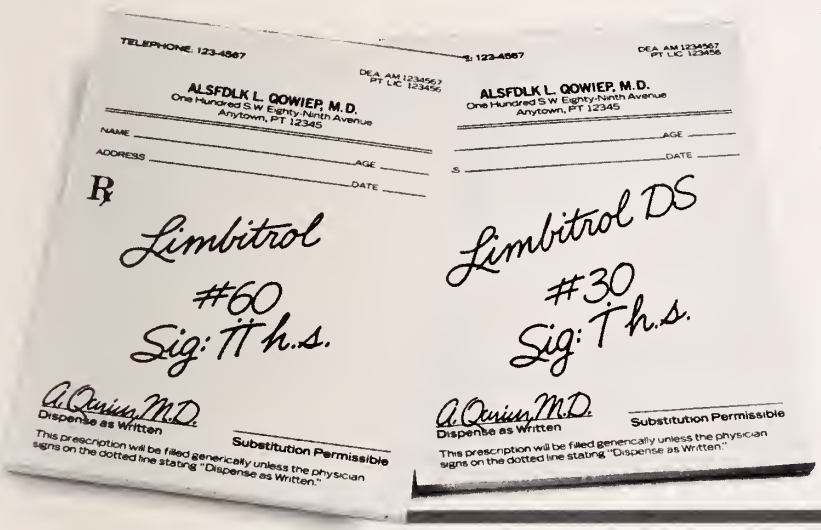
S & L Signal Company 15
SMS Services 53
StrategiCare 9
University of Wisconsin Hospital and Clinics 49
Wisconsin Shakespeare Festival 15

In moderate depression and anxiety

- 74% of patients experienced improved sleep after the first *h.s.* dose[1]
- First-week improvement in somatic symptoms[1]
- 50% greater improvement with Limbitrol in the first week than with amitriptyline alone[2]



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Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓥ

References: **1.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Feighner JP, *et al: Psychopharmacology 61:*217-225, Mar 22, 1979.

Limbitrol®Ⓥ
Tranquilizer—Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants; concomitant use with MAOIs or within 14 days of monoamine oxidase inhibitors (then initiate cautiously, gradually increasing dosage until optimal response is achieved); during acute recovery phase following myocardial infarction.

Warnings: Use with caution in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur when used with anticholinergics. Closely supervise cardiovascular patients. Arrhythmias, sinus tachycardia, prolongation of conduction time, myocardial infarction and stroke reported with tricyclic antidepressants, especially in high doses. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving).

Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations. Consider possibility of pregnancy when instituting therapy.**

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: Use cautiously in patients with a history of seizures, in hyperthyroid patients, those on thyroid medication, patients with impaired renal or hepatic function. Because of suicidal ideation in depressed patients, do not permit easy access to large quantities of drug. Periodic liver function tests and blood counts recommended during prolonged treatment. Amitriptyline may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady-state concentrations of the tricyclic drugs. Use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Should not be taken during the nursing period or by children under 12. In elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.

Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods; milder after taking continuously at therapeutic levels for several months. Withdrawal symptoms also reported with abrupt amitriptyline discontinuation. Therefore, after extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

Overdosage: Immediately hospitalize patient. Treat symptomatically and supportively. I.V. administration of 1 to 3 mg physostigmine salicylate may reverse symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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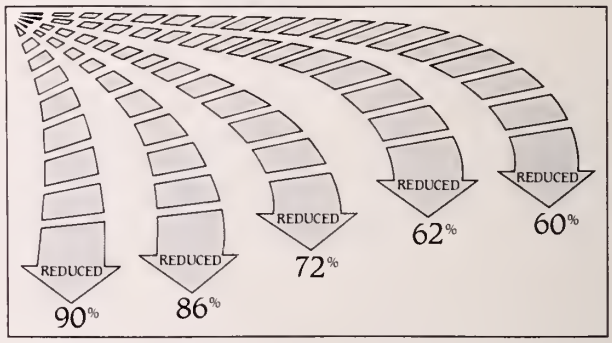
- 74% of patients experienced improved sleep after the first *h.s.* dose[1]
- First-week reduction in somatic symptoms[1]

Caution patients about the combined effects of Limbitrol with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as operating machinery or driving a car. In general, limit dosage to the lowest effective amount in elderly patients.

Percentage of Reduction in Individual Somatic Symptoms During First Week of Limbitrol Therapy*



*Patients often presented with more than one somatic symptom.

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Official Publication of the State Medical Society of Wisconsin

Wisconsin Medical Journal

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Vol. 88, No. 8
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August 1989 Vol. 88 No. 8

Contents

Opinions

Editorials

4 Physicians and nurses: a common purpose
by Richard D. Sautter, MD, *medical editor*, Marshfield

6 Health care costs and social commitment
by John P. Mullooly, MD, Milwaukee

Letters

9 The medical examiner and euthanasia
by Jeffrey M. Jentzen, MD, Milwaukee

10 An offer to help
by John B. Weeth, MD, La Crosse

12 Adoption revisited
by Charles R. Buck, MD, Milwaukee

12 What medicine is like
by Geoffrey C. Kloster, MD, Galesville

Soundings

14 Doc-in-a-box
by David L. Schiedermayer, MD, Milwaukee

Organizational

16 Instructions for authors
19 SMS resource directory
26 Membership facts
28 AMA judicial opinions

Directory

30 How the directory was compiled
30 Correction form
31 AMA Self-designated practice specialties (primary and secondary) with codes
32 Approved specialty boards and certificate categories (effective March 1986) with codes

Our cover: The first SMS president, Mason C. Darling, MD, 1847. Dr Darling set a lofty example of involvement by being elected to the Territorial Legislative Assembly, where he served as Speaker of the House; to the Territorial Council, of which he served as president; to the US House of Representatives (30th Congress); and as the first mayor of Fond du Lac.

Wisconsin Medical Journal

The *Wisconsin Medical Journal* (ISSN 0043-6542) is the official publication of the State Medical Society of Wisconsin and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor and editor are responsible for overseeing the production, business operation and contents of the journal. The editorial board, chaired by the medical editor, solicits and screens all scientific, special and soundings articles. The editorial director provides leadership for the editorial associates and comments on both editorials and letters to the editor. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the SMS take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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State Medical Society of Wisconsin

Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

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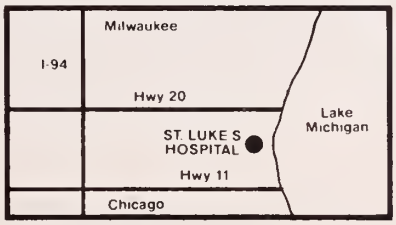

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Editorials

Physicians and nurses: a common purpose

The Editorial Board of the *Wisconsin Medical Journal* is sponsoring a writing contest for nurses in graduate training. The purpose is to bring the two professions closer together since we have one common purpose—to serve the patient.

Some physicians fear nurse clinicians will practice medicine. Some are reluctant to allow nurses appropriate discretion in making decisions about patient care.

After leaving the University of Iowa Hospital where I trained, I held some of these same prejudices. I had been hired by a clinic to start heart surgery and I discovered a whole new world. It was a world without surgical residents or even interns. I was at somewhat of a loss as to what to do. Who would assist me in a dog lab in surgery? Who would care for my critically ill patients? I suddenly discovered nurses—nurses who were eager to learn, eager to become knowledgeable and proficient, and eager for the patients to do well. They quickly understood the new techniques and procedures, and the attendant problems. Moreover, throughout the years, they made a point to comprehend and use the explosive amount of new technology that made operations and the postoperative period safer.

A significant amount of my success I owe to those who helped me, who, in large part, were nurses. For those physicians who wish to have nurses become a part of their treatment team, I suggest the following:

- Respect the nurses' opinions. They are in contact with the patient a great deal more of the time than we are. Make them a real part of the patient's care team.
- Gain their trust. Part of developing trust is coming to see the patient when called without undue argumentation.
- Accept the entire responsibility for outcome and don't try to transfer blame for a "poor outcome."
- Acknowledge to the patient, the family, the physician staff, and hospital administration the nurse's role in the patient's successful recovery.

It's possible my experience with nurses has been unique. Not all nurses or physicians can have this kind of relationship, but when it happens, the beneficiary is the patient. The patient is, and always must be, our first concern.

—Richard D. Sautter, MD
medical editor

Opinion policy

Opinions expressed in the Voice of the SMS section reflect the official policy of the State Medical Society of Wisconsin.

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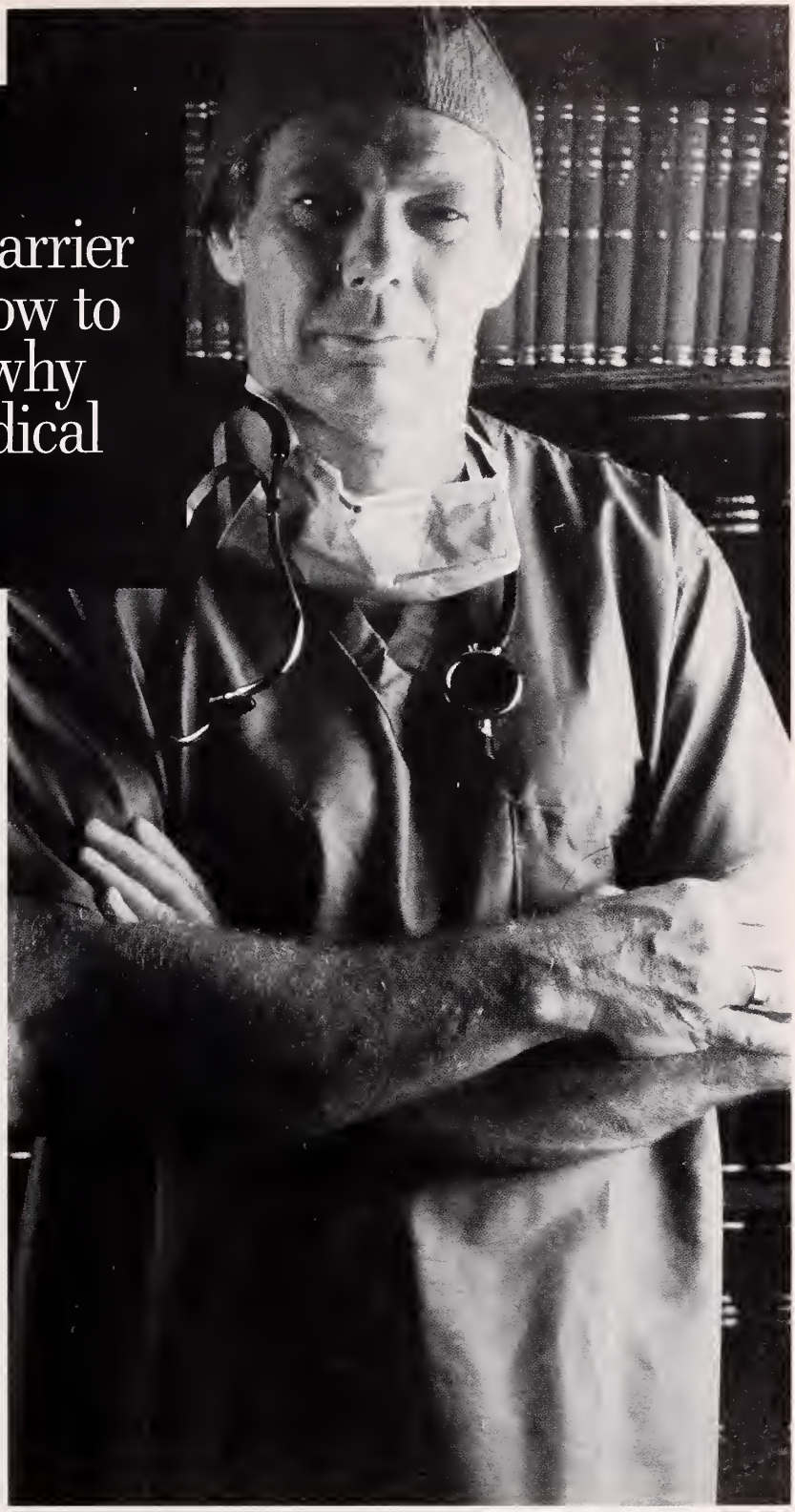

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Health care costs and social commitment

IT IS IRONIC that while most people in this country want the best care medicine can provide, they are unwilling to pay for it. People are willing to pay for many things they don't need, but when it comes to paying for medical care they are most reluctant to do so. This attitude is responsible for the dilemma that exists in this country today, viz, the increasing costs of medical care and our unwillingness to pay for it.

As has been well documented, the cost of medical care will continue to rise because of factors quite well known to us. The various cost-containment schemes with which we have experimented so far have proved to be illusory. The specter hovering over prepaid plans—and their possible eventual demise, as illustrated by the financial difficulties of Maxicare—is sending chills through the HMO industry.

The automobile industry's recent advocacy of national health care is a cynical response to the situation of rising health care costs. To shift business and industry's health care responsibilities to an already overburdened federal government which cannot manage its own affairs is irresponsible. The federal government has already put this country into debt to the rest of the world by its irresponsible management of its affairs. It cannot even manage well its obligations to the senior citizens through Medicare or to the poor through Title 19. To ask the federal government to be responsible for the care of all of its citizens is preposterous for any clear thinking individual. Until business, industry and every sector of our economy recognize that health care is an expensive item and that it is their responsibility to share in the costs of health care, no progress will be made in solving this problem. To entrust this burden to politicians in Congress is hazardous, at best. It is clear that the country cannot afford universal health care considering the government's present priorities. It may pass a bill, but will not be able to fund it as has proven to be the case with Medicare.

The AMA warned the country about this in the '60s, but this was

Continued on page 8

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Continued from page 6
cavalierly dismissed by President Johnson, the Texan with the egregious ego. We are living with the consequences of this decision. If the government wishes to go down this road toward national health insurance it is mandatory for it to put a higher priority in its budget for health care. Whether it is possible to do this is questionable at this time, considering its commitments to a strong defense, its debt obligations and mandatory programs already on the books.

By business and industry attempting to shift their obligations to the federal government, it is quite clear that the adage, "a leopard never changes its spots" remains quite true. Business and industry have never cared a whit about the needs of their employees. The ruthless pursuit of money has been their goal. When their commitments to their employees interfere with making a profit, they are the first to betray them. Such a scenario is in the offing with their present caper with national health insurance.

Unless the social consciousness of government, business, and industry is raised to a point where those groups are willing to reorder their priorities to include the health care of their citizens and employees, and are willing to pay for it, we have no other alternative but to choose the course of rationed care, poor care or no care at all. For it is clear to me that there is plenty of money in the economy to provide adequate care. It is only a matter of committing our resources to provide that care. A recent example brought to my attention may illustrate the point. To provide renal dialysis to 75,000 people in this country for a year costs $2.3 billion. At the same time consumers spend $2.9 billion per year purchasing potato chips! I am sure there are many similar comparisons to illustrate this point.

If we, as a nation, if we, as physicians, mean to take care of our citizens in their needs for health care, we must forget about the present illusions about cost containment and demand that the body politic reorder its present agenda, fund health care adequately and be true to its commitment to its citizens whom they have been elected to serve. If the body politic clearly rejects this approach, as it may do pursuing its own selfish ends, at least we know that medicine has done its utmost in the public arena to serve its patients to the best of its ability.

I am sure that in Congress, business, and industry, there are people of good will who are working diligently to wrestle with this problem of cost of health care. All we ask them to do is to reorder their priorities and put adequate health care costs at the top of their agenda and fund it. When they come to make a decision, let us hope they will treat their constituents or employees as they would like to be treated. If they act in this manner, they will make the right decision and fulfill their social commitment to their fellow man.

—John P. Mullooly, MD
Milwaukee

Editor's note: The opinions expressed above are the author's and do not necessarily reflect SMS policy.

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Letters

The medical examiner and euthanasia

TO THE EDITOR: Recent articles in the medical literature (Wanzer, et al, *New Eng J Med*, March 30, 1989, 320:884–889) have openly discussed the role of a physician in assisting the terminal patient in performing a suicidal act. This view has obtained widespread acceptance in foreign countries where active and passive euthanasia have been practiced. It is now beginning to be seriously discussed in this country as a method of treatment for the terminally ill patient. Physicians, as pointed out in the article, are being increasingly presented with requests by patients to participate in active euthanasia wherein drugs dispensed by the physician become the causative agent of death.

The State Medical Society and Medical Society of Milwaukee County have supported the position of the AMA on the withholding or withdrawing of life-prolonging medical treatment in terminally ill patients, which includes nutrition and hydration, as accepted medical treatment for the hopelessly ill patient.

The disposition of these deaths is of increasing concern for the medical examiner or coroner, who must by statute investigate deaths of homicide or suicide, and unnatural deaths. In a suicide, it is the person who is responsible for the agent of his or her death. Homicide implies that another person acts as the agent of death. The Wisconsin Statute 940.12 is implicit in the illegality of assisting in a patient's suicide: "Whoever with intent that another take his or her own life assists such person to commit suicide is guilty of a Class D felony."

Medical examiners and coroners have in the past cooperated and participated in regulated hospice programs whereby a terminal patient may die in dignity with the benefit of home atmosphere and with the loving care of family and friends. These programs rely on systematic cooperation between nurse, physician, and medical examiner, whereby each performs a function in assuring uncomplicated, dignified continuation of the natural death process.

The rapid transformation of modern medicine often outruns the legal, and statutory guidelines which serve as a guide in the delivery of care to the patient and to protect the public.

In regard to the participation of a physician in a patient suicide or the performance of active form of euthanasia, there exist no set of special guidelines, no exceptions to the rules that now exist, to protect the physician who actively participates in a patient's death.

The medical examiner must certify these deaths appropriately, without regard to the intention of the participants, based on only the objective

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facts of the case, with final disposition reserved for the legal authority in that jurisdiction. In the case of the terminally ill, this could and will result in financial, emotional, and legal difficulties for the surviving family.

Until the question of legalized euthanasia and suicide has undergone the stringent social, ethical, and political dialogue which culminate with the legislative process, the medicolegal officer must view them as unnatural and illegal acts on a person by another individual.

—Jeffrey M. Jentzen, MD
Milwaukee

An offer to help

TO THE EDITOR: I could relate to Dr Lamont's experience in helping his son with the Cub Scouts and Pinewood Derby racer. For me, however, this is the second time around. A child's marriage is unraveling and grandchildren are living with us. The materials gathered for a father's work with his son fell to the grandfather to do the main part of the task.

I too wondered, as did Dr Lamont: What about the boys that come from single-parent homes where knowledge of sandpaper, shellac, hammer, and nails are lacking?

Next year, when Pinewood Derby time rolls around I will try to send word along that I will be glad to lend advice and materials to the child of any single parent who might wish such help.

—John B. Weeth, MD
La Crosse

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Adoption revisited

TO THE EDITOR: As an adoptive parent, I am compelled to defend the "unnatural" adoptive family. It is disheartening that I must do so with my professional family (*Surrogate motherhood*, J.P. Mullooly, MD, *WMJ*, June 1989). It is also ironic, since I agree with Dr Mullooly's conclusion: Surrogacy is indeed the ultimate creation of a materialistic and self-centered culture. Equating surrogate parenthood with adoption, however, reflects a profound insensitivity and misunderstanding of adoption and reinforces the myths that are already too prevalent in our society.

If I am not the *real* father of my children, then who am I? My son was asked by a fellow third-grader, "Where are your 'real' parents?" He answered, "Why, they're at home; where are yours?" If my wife is not the *natural* mother of our children, then is she *unnatural* and incapable of nurturing our children?

". . . (A)doption stories of persons seeking their real parents tell us something," wrote Dr Mullooly. They do indeed! They tell us of people who are confronting and understanding the reality of their lives. It is a normal, healthy process. Adoption does not require children to deny their roots, just to understand, accept and be proud.

Our culture needs more, not less, of the courage and self-sacrifice manifested by birth parents who recognize and accept their inability to parent and lovingly give up their children to parents who welcome this gift. We need less of parents who choose to manufacture, abort or keep unwanted children as a manifestation of their profound self-interest.

—Charles R. Buck, MD
Milwaukee

What medicine is like

TO THE EDITOR: Dr Treacy's opinion in the May issue of the *Wisconsin Medical Journal* is interesting and pertinent to all of us in practice, although not surprising. Thinking back to my own entry into medical school in 1967, I recall that the majority of my classmates, as well as myself, entered medicine not because of the income, but because we wanted to be doctors.

We had a pie-in-the-sky picture of physicians saving lives every hour, performing great miracles for the physical well-being of the patient, and being a true and close friend to every patient that came through the door.

Although the income was not a concern, we all felt it would be sufficient that we could charge less than physicians have in the past and still have plenty left over for philanthropy.

For most of us, the truth hit sometime either during the sophomore or junior year. We could occasionally save a life, never perform miracles, and would have difficulty finding time to form friendships with our colleagues, much less our patients. (I don't think the financial realities struck that soon. For me, it struck when I was in practice and realized how little I could do with "all that money.")

For many, the response was "To hell with it, I'm going into a specialty where I can make big bucks and not have to deal with my patients anymore than essential to make those big bucks." For others, the fulfillment of what they entered medical school for was sought in more subtle ways, and the rather extensive sacrifices made on our lives were considered an accepted price for the less than expected rewards.

With the media coverage and exploitation of the "down side" of medicine today, I suspect many prospective medical school applicants are recognizing much earlier what medicine is really like, and thus not considering medical school. What they are not realizing, however, is that the drudgery of everyday practice, the long hours, the demands of the self-centered patient, and the comfortable but not wealthy income can be an acceptable price to pay for the rewards of the occasional sincere expression of gratitude from a patient, and, lacking that, the knowledge that we have indeed made the patient's world a better place for them, even if they don't always recognize this.

If it has not already been done, I think a study of college juniors and seniors to determine if they are interested in medicine, what are their expectations, and if not, have they considered it and why did they decline further pursuit of medical career, would be helpful in determining how to better attract qualified applicants to medical school.

—Geoffrey C. Kloster, MD
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2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

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Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

Soundings

Doc-in-a-box

David L Schiedermayer, MD
Milwaukee, Wisconsin

THE AMERICAN FAMILY is out shopping and stops in at a bright storefront. The children are along, laughing in the back seat, and they suddenly exclaim, "There it is!" They all hop out, eager to go inside. Once through the doors, instead of ordering fast food or picking up film, they see a doctor. This is "Doc-in-a-box."

According to *Webster's New World Dictionary,* Jack is a nickname for John, James or Jacob. Originally the name meant a common fellow or boy assistant. A Jack-in-a-box is a box from which a grotesque little fellow on a spring jumps when the crank is turned. Doc-in-a-box has some of the same connotations for me—a place where a physician is really on a spring, in a box, waiting to come out, posed as a common fellow. These small clinics, while still in their development stage, look like they will become very popular, just as fast food restaurants and other shopping mall convenience operations have.

The Doc-in-a-box movement is an inevitable outgrowth of the American convenience society where nothing is worth waiting for. We are a mobile culture, an impatient culture.

The Doc-in-a-box movement also may be a result of changing work ethics of young physicians, who are willing to work shorter hours for less money, with less continuity of care, to be able to do other things in life.

Some of the more entrepreneurish physicians also recognize the money to be made in a well-run Doc-in-a-box. That money will be made from the increased number of patients seen and the smaller salary and overhead structures of these clinics compared to regular doctor offices.

Are physicians going to retain their measure of free agent status, individually contracting with hospitals or other associations? Or will they eventually be just another employee at Sears?

These questions need to be answered in the next decade. At the present time, most physicians are embarrassed by the advertising, if not the idea, of Doc-in-a-box. While advertising methods such as newsletters and community service efforts have been approved by physicians, full-sized billboards with a picture of some caring, elderly physician as "your physician when you come to the Doc-in-a-box" are still considered inappropriate. The truth is that these clinics are largely staffed by young physicians and moonlighting residents.

Despite physician arguments against them, Doc-in-a-box setups may continue to proliferate. As long as these clinics give good care, community physicians will find them to be fierce competitors. But for patients who are in need of continuity of care, who have severe chronic illnesses, Doc-in-a-boxes are inadequate. Patients with complicated heart disease, heart failure, severe hypertension or renal disease will have potentially fragmented care, especially if they, like most shoppers, go to both the north mall and the south mall in town. For patients with emergent conditions, Doc-in-a-boxes may cause dangerous delays, as would any physician's office. These patients belong in the hospital emergency room where they can receive the attention of physicians and nurses who are competent in the area of trauma and emergency care. Doc-in-a-boxes are here to stay, at least to the extent that they can provide appropriate service, and their future surely rests on more than just the opinions of physicians. But the image of a Jack-in-a-box, jumping up out of a small little cubicle, lingers to trouble me.

If I were ill, I wouldn't go to a Doc-in-a-box. McDonald's is a good place to eat sometimes, but if you want to do some serious eating, it's just not the place to go. The same is true for Doc-in-a-boxes. If you have chest pain and it is due to costochondritis from coughing, Doc-in-a-boxes will be fine. But their menu is quite limited, and if you are having a miocardial infarction you'd be a lot better off at a place with a bigger bill of fare.

So when I get really sick, I'm not going to the Doc-in-a-box place. I'm going to look for some good Ma and Pa clinic.

Dr Schiedermayer is assistant professor, Division of General Internal Medicine, and associate director, Center for the Study of Bioethics, Medical College of Wisconsin, Milwaukee. Reprint requests to: David L. Schiedermayer, MD, Center for the Study of Bioethics, 8701 Watertown Plank Road, Milwaukee, WI 53226 (414-257-6040). Copyright 1989 by the State Medical Society of Wisconsin.

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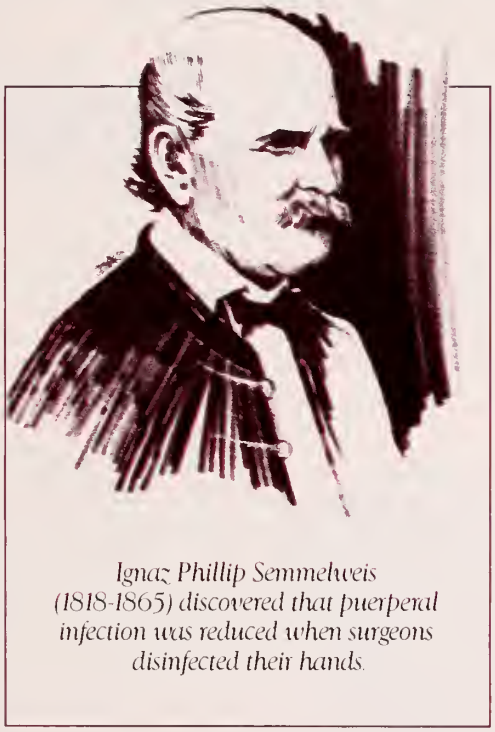

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D

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E

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I

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M

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1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.

2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.

3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS**.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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Continued from previous page

W

Wisconsin Health Care Liability Insurance Plan (WHCLIP)	Mark Adams
Wisconsin Ambulatory Medical Care Survey	Mary Barham
Wisconsin Association of Senior Physicians (WASP)	Jean Steele
Wisconsin Medical Journal	Russell King
Wisconsin Workshop on Health	LaVerne Bartel
Wisconsin Peer Review Organization (WIPRO)	Trish Ramsay
WIPRO audits	Trish Ramsay
WISPAC	Terry Hottenroth/field consultants
Women's health issues	Mary Barham
Workers compensation	Lee Johnson

Y

Young Physicians Section	Deborah Wilke

SMS Public Affairs Division

Field consultants

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- Milwaukee
- Ozaukee
- Racine
- Walworth
- Washington
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Trempealeau-Jackson-Buffalo
Vernon

Association Management Services

Lanny Hardy
Madison, 608-283-5410
Services to other organizations
Jackie Millar/Kathy Mohelnitsky/Tami Karls
608-283-5410; or toll free, 1-800-362-9080
Dane County Medical Society
Dane County Sports Medicine Council
Wisconsin Academy of Physician Assistants
Wisconsin Association of Medical Directors
Wisconsin Chapter—American College of Cardiology
Wisconsin Chapter—American College of Surgeons
Wisconsin Council of Child and Adolescent Psychiatry
Wisconsin Dietetic Association
Wisconsin Medical Group Management Association
Wisconsin Medical Records Association
Wisconsin Neurological Society
Wisconsin Neurosurgical Society
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American College of Physicians

in conjunction with

Wisconsin Society of Internal Medicine

Thirty-Fourth Annual Meeting
September 14-16, 1989
Embassy Suites Hotel, Green Bay, Wisconsin

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Jeffrey Jones, M.D., Ph.D., William S. Middleton Veterans Hospital
Paula Jones, M.D., Mount Sinai-Samaritan Medical Center
Peter M. Layde, M.D., Marshfield Medical Research Foundation
Michael Rytel, M.D., Medical College of Wisconsin
Dean T. Stueland, M.D., Emergency Medicine Specialists/Marshfield Clinic

SOCIOECONOMIC PROGRAM: "Dealing with the Problem of the Uninsured"

Speakers:
Thomas Adams, State Medical Society, Secretary and General Manager
Peter Boch, State Representative 8th Assembly District, Milwaukee
Donald K. Crandall, M.D., AMA Representative, Muskegon, Michigan
William G. Smith, National Federation of Independent Businessmen
Delore Williams, M.D., State Medical Society Task Force for the Uninsured

Registration Fee:
$75 (members) **$100 (non-members)**

Contact WSIM Executive Office for Complete Registration Details:
414/276-6445
611 E. Wells Street
Milwaukee, WI 53202

Q.

WHY BE A MEMBER OF THE STATE MEDICAL SOCIETY?

A.

MEMBERSHIP HAS BENEFITS!!

SMS MEMBERS:

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Membership facts

Whether you are just starting medical school, engaged in postgraduate training, maintaining a full-time practice, or retired, the Society has a membership classification to fit your needs. Election to membership by the county medical society in which your principal place of practice is located carries with it membership in the SMS and, if you wish, the American Medical Association. If you qualify for resident membership at the time of your election, your membership dues are greatly reduced. You may also qualify for reduced dues during the first two years of your practice. In addition, two-physician families may be eligible for a $50 discount on total SMS membership dues. Regular membership dues in 1990 are $525 for the SMS and $400 for the AMA; county society dues vary.

Dues for regular, part-time practice, or over-age-70 membership classifications may be paid in one lump sum or in two equal installments, with the first half due by Oct 1, 1989, and the second half by Jan 1, 1990.

An incentive plan is available for early payment of county and state dues: 5% off state dues for those who pay state and county dues in full by Oct 1, 3% for dues received by Nov 1, and 1% for dues received by Dec 1.

A more detailed list of SMS membership classifications and their corresponding dues follow.

SMS Membership Classifications

Regular: Member in active practice. Regular members who are in their first or second year out of residency, fellowship, or military obligation may qualify for reduced dues for the SMS, the AMA, or both.

Part-time practice: Physician regardless of age who practices 1,000 hours or less during the calendar year but does not qualify for retired membership.

Resident: Member who as of Jan 1 of the dues year is in an approved training program as a hospital resident or research fellow and is licensed to practice medicine and surgery in Wisconsin.

Military service: Member who is serving in the US armed forces or US Public Health Service (generally not to exceed five years).

Associate: Member whose dues are waived because of financial hardship due to illness or disability. This classification is temporary and is reviewed on an annual basis.

Retired: Member who has completely retired from practice (works less than 240 hours each year). All dues are waived unless county society indicates it wishes to charge county dues. (Retired and life members who wish to receive *Medigram* and the *Wisconsin Medical Journal* must pay a $40 publications fee.)

Life: Member who has held membership in a state medical society for 50 years. Past presidents of the SMS are also included in this category.

Honorary: Physician named an honorary member by the Board of Directors for outstanding contributions to the medical profession.

Over age 70: Member in active practice who is over 70 years of age.

Scientific fellow: Person engaged in teaching or research in the basic sciences at an accredited college or university—but not holding a degree in medicine or osteopathy—by invitation and consent of the Board of Directors.

Emeritus: Retired member who has chosen not to renew his or her license.

Candidate: Member attending a medical school in Wisconsin or fulfilling a postgraduate obligation prior to eligibility for licensure.

1990 Dues

	SMS	AMA	County
Regular	$525	$400	Normal county dues
First year in practice	$262	$200	Normal county dues
Second year in practice	$393	$300	Normal county dues
Two physician family	$475	$400	Normal county dues
Part-time practice	$262	$400	Normal county dues
Part-time, over age 70	$262	$200*	Normal county dues
Resident	$ 60	$ 45	Varies
Military service	-0-	$264/$45	-0-
Associate	-0-	-0-	-0-
Retired	-0-	$400/$80/-0-*	-0-
Retired, over age 70	-0-	-0-	-0-
Life	-0-	$400/-0-*	-0-
Honorary	-0-	$400/-0-*	-0-
Over age 70	$262	$400/-0-*	Normal county dues
Candidate:			
Student	$ 20[1]	$ 20[2]	-0-
Postgraduate, one	$ 10.00	$ 45.00	Varies
Scientific Fellow	-0-	-0-	-0-
Emeritus	-0-	-0-	-0-

[1]Students' SMS and county dues for four academic years
[2]Students' AMA dues for the calendar year 1988

*Physicians in these categories may be eligible for exemption from AMA dues under the grandfather clause. (AMA dues-exempt members who were granted exemption before 1986 based on previously established criteria, with the exception of financial hardship or disability, will automatically be exempt from dues in 1986 and the years following.)

Current AMA policy provides for only two categories of exemptions: financial hardship or disability and 70 years of age or older and fully retired. AMA dues for under-age-70 and fully retired members may be reduced to $80.

State Society dues are prorated on a monthly basis for those elected to membership July 1 through Sept 30. Those elected after Sept 30 are exempt from dues for the balance of the year in which they are elected. AMA dues follow the same pattern except that prorating is on a semiannual, rather than monthly, basis.

To begin the membership process, contact your county medical society or call the Communications Division of the SMS at 1-800-362-9080 or 608-257-6781.

ARMY RESERVE OFFERS NEW FINANCIAL INCENTIVES FOR RESIDENTS IN ANESTHESIOLOGY AND SURGICAL SPECIALTIES

If you are a resident in Anesthesiology, Orthopaedic Surgery, or General Surgery including Neurosurgery, Colon/Rectal, Cardiac/Thoracic, Pediatric, Peripheral/Vascular and Plastic Surgery, the Army Reserve has a new and exciting opportunity for you. The New Specialized Training Assistance Program will provide you with financial incentives while you're training in one of these specialties.

Here's how the program can work for you. If you qualify, you may be selected to participate in the Specialized Training Assistance Program. You'll serve in a local Army Reserve medical unit with flexible scheduling so it won't interfere with your residency training, and in addition to your regular monthly Reserve pay, you'll receive a stipend of **$678** a month.

You'll also have the opportunity to practice your specialty for two weeks a year at one of the Army's prestigious Medical Centers.

Find out more about the Army Reserve's new Specialized Training Assistance Program. Call (collect) your U.S. Army Medical Department Reserve Personnel Counselor:
Major Paul A. Deneson, Jr.,
312-433-0365.

ARMY MEDICINE. BE ALL YOU CAN BE.

AMA judicial opinions

The following is a list of topics on which the AMA Council on Ethical and Judicial Affairs holds current opinions. The full text of the *1989 Current Opinions* can be obtained from: American Medical Association, 535 N. Dearborn St, Chicago, IL 60610.

Social policy issues
Abortion
Abuse of children, elderly persons and others at risk
Allocation of health resources
Artificial insemination
Artificial insemination by donor
Capital punishment
Clinical investigation
Clinical investigation: Replacement of vital human organs
Costs
Fetal research guidelines
Gene therapy
Genetic counseling
Genetic engineering
In vitro fertilization
Organ donation
Organ transplantation guidelines
Quality of life
Surrogate mothers
Unnecessary services
Withholding or withdrawing life-prolonging medical treatment
Withholding or withdrawing life-prolonging medical treatment: Patients' preferences

Interprofessional relations
Nonscientific practitioners
Nurses
Optometry
Referral of patients
Specialists
Sports medicine
Teaching

Hospital relations
Admission fee
Assessments, compulsory
Billing for staff services
Economic incentives and levels of care
Organized medical staff
Physician-hospital contractual relations
Staff privileges

Confidentiality, advertising and communications media relations
Advertising and HMOs
Advertising and publicity
Communications media: Press relations
Communications media: Standards of professional responsibility
Confidentiality
Confidentiality: Attorney-physician relation
Confidentiality: Computers
Confidentiality: Insurance company representative
Confidentiality: Physicians in industry

Fees and charges
Contingent physician fees
Fee splitting
Fee splitting: Clinic or laboratory referrals
Fee splitting: Drug or device prescription rebates
Fee splitting: Referrals to health-care services
Fees: Group practice
Insurance form completion charges
Interest charges and finance charges
Laboratory bill
Surgical assistant's fee
Competition

Physician records
Records of physicians: Availability of information to other physicians
Records of physicians: Information and patients
Records of physicians on retirement
Sale of medical practice

Practice matters
Appointment charges
Clinics
Conflicts of interest: Guidelines
Consultation
Contractual relationships
Drugs and devices: prescribing
Health facility ownership by a physician
Informed consent
Laboratory services
Lien laws
Neglect of patient
Patient information
Referral of patients and disclosure of limitations
Sexual misconduct
Substance abuse
Substitution of surgeon without patient's knowledge or consent

Professional rights and responsibilities
Accreditation
Agreements restricting the practice of medicine
Civil rights and professional responsibility
Discipline and medicine
Due process
Free choice
Medical testimony
New medical procedures
Patent for surgical or diagnostic instrument
Peer review
Physician impairment
Physician-patient relationship: Respect for law and human rights
Physicians and infectious diseases

State Medical Society of Wisconsin

1989

Membership Directory

as of July 1, 1989

Listed in alphabetical order and by county medical society.

This directory includes member's name, address, telephone number (when provided), primary and secondary practice specialties, and board-certified specialties and subspecialties. Members received a verification form on the covers of the March and April issues of the *WMJ* for correcting membership records used in this listing.

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State Medical Society of Wisconsin
PO Box 1109, Madison, WI 53701

How the directory was compiled

Information in this directory has been provided by the staff in Membership Records after each Society member was given the opportunity to verify its accuracy by returning a verification form which appeared on the "false" front cover of the March and April issues of the *Wisconsin Medical Journal.* This directory is reproduced from the computer print-out of the SMS membership records. The computer program allows members to designate up to three specialties (primary, secondary, tertiary) in which they practice. These specialty designations appear in the directory on the last line of each member listing before the slash (/). Also on the last line after the slash (/), members are allowed to designate up to three specialties or subspecialties in which they are board-certified.

The SMS recognizes the practice specialties used by the AMA in its *American Medical Directory,* which includes data collected on board certification from physicians themselves and from the American Board of Medical Specialties in its publication, *Compendium of Certified Medical Specialists.* Only those certifications from the 23 boards included in the *Compendium* are included in this directory.

Practice specialties and board certifications listed in the SMS membership records have been provided by individual members who annually update this information for the *SMS Membership Directory.* In neither case has the specialty or certification designations been routinely verified with any other source. The specialty codes used in this directory are used for record-keeping and do not imply recognition or endorsement of any field of medicine. They are intended for use in this directory only and are not to be used for changing or updating other records. The SMS, its officers, agents and employees make no claims as to accuracy, nor accept liability for information that may not be correct, or for errors and omissions.

AMA codes for self-designated practice specialties and the board-certified specialties appear elsewhere in this issue.

Correction Form

Members whose listing in this directory is not accurate are urged to submit changes to Membership Records on the form below. Such changes will be published in subsequent issues of the *WMJ.*

TO: Membership Records, State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701

Please correct the information used in the 1988 Membership Directory on your records as follows:

COUNTY MEDICAL SOCIETY _____

PRACTICE SPECIALTIES
(use codes from list)

PRIMARY	SECONDARY	TERTIARY

/

BOARD-CERTIFIED
SPECIALTIES
(use codes from list)

/

PRIMARY	SECONDARY	TERTIARY

TELEPHONE # _____

NAME _____

STREET _____ SUITE/APT # _____

PO BOX # _____

CITY _____ STATE _____ ZIP _____

SIGNED _____ DATE _____

AMA Self-designated practice specialties (primary and secondary) with codes.

- ☐ A Allergy
- ☐ ABS Abdominal Surgery
- ☐ ADL Adolescent Medicine
- ☐ AI Allergy & Immunology
- ☐ AM Aerospace Medicine
- ☐ AN Anesthesiology
- ☐ ATP Anatomic Pathology

- ☐ BLB Blood Banking

- ☐ CCM Critical Care Medicine
- ☐ CD Cardiovascular Diseases
- ☐ CDS Cardiovascular Surgery
- ☐ CHN Child Neurology
- ☐ CHP Child Psychiatry
- ☐ CLP Clinical Pathology
- ☐ CMP Chemical Pathology
- ☐ CRS Colon & Rectal Surgery

- ☐ D Dermatology
- ☐ DIA Diabetes
- ☐ DLI Diagnostic Laboratory Immunology
- ☐ DMP Dermatopathology
- ☐ DR Diagnostic Radiology

- ☐ EM Emergency Medicine
- ☐ END Endocrinology

- ☐ FOP Forensic Pathology
- ☐ FP Family Practice
- ☐ FPS Facial Plastic Surgery, Otolaryngology

- ☐ GE Gastroenterology
- ☐ GER Geriatrics
- ☐ GO Gynecological Oncology
- ☐ GP General Practice
- ☐ GPM General Preventive Medicine
- ☐ GS General Surgery
- ☐ GYN Gynecology

- ☐ HEM Hematology
- ☐ HNS Head & Neck Surgery
- ☐ HS Hand Surgery

- ☐ ID Infectious Diseases
- ☐ IG Immunology
- ☐ IM Internal Medicine
- ☐ IP Immunopathology

- ☐ LM Legal Medicine

- ☐ MFM Maternal & Fetal Medicine
- ☐ MFS Maxillofacial Surgery
- ☐ MM Medical Microbiology

- ☐ N Neurology
- ☐ NA Neuropathology
- ☐ NEP Nephrology
- ☐ NM Nuclear Medicine
- ☐ NPM Neonatal-perinatal Medicine
- ☐ NR Nuclear Radiology
- ☐ NS Neurological Surgery
- ☐ NTR Nutrition

- ☐ OBG Obstetrics & Gynecology
- ☐ OBS Obstetrics
- ☐ OM Occupational Medicine
- ☐ ON Oncology
- ☐ OPH Ophthalmology
- ☐ ORS Orthopaedic Surgery
- ☐ OS Other; *ie*, physician designated a specialty other than appearing here
- ☐ OTO Otolaryngology

- ☐ P Psychiatry
- ☐ PA Clinical Pharmacology
- ☐ PD Pediatrics
- ☐ PDA Pediatric Allergy
- ☐ PDC Pediatric Cardiology
- ☐ PDE Pediatric Endocrinology
- ☐ PDR Pediatric Radiology
- ☐ PDS Pediatric Surgery
- ☐ PH Public Health
- ☐ PHO Pediatric-Hematology-Oncology
- ☐ PM Physical Medicine & Rehabilitation
- ☐ PNP Pediatric Nephrology
- ☐ PS Plastic Surgery
- ☐ PTH Anatomic/Clinical Pathology
- ☐ PUD Pulmonary Diseases
- ☐ PYA Psychoanalysis

- ☐ R Radiology
- ☐ REN Reproductive Endocrinology
- ☐ RHU Rheumatology
- ☐ RIP Radioisotopic Radiology

- ☐ TR Therapeutic Radiology
- ☐ TRS Traumatic Surgery
- ☐ TS Thoracic Surgery

- ☐ U Urological Surgery

- ☐ VS Vascular Surgery

Approved specialty boards and certificate categories (effective March 1986) with codes.

American Board of	General Certificates		Subspecialty Certificates	
Allergy & Immunology	☐ AI	Allergy & Immunology	☐ DLI	Diagnostic Laboratory Immunology
Anesthesiology	☐ AN	Anesthesiology	☐ CCM	Critical Care Medicine
Colon & Rectal Surgery	☐ CRS	Colon & Rectal Surgery		
Dermatology	☐ D	Dermatology	☐ DMP ☐ DDI	Dermatopathology Dermatological Immunology / Diagnostic Laboratory Immunology
Emergency Medicine	☐ EM	Emergency Medicine		
Family Practice	☐ FP	Family Practice	☐ GER	Geriatric Medicine
Internal Medicine	☐ IM	Internal Medicine	☐ CD ☐ CCM ☐ DLI ☐ END ☐ GE ☐ GER ☐ HEM ☐ ID ☐ MO ☐ NEP ☐ PUD ☐ RHU	Cardiovascular Disease Critical Care Medicine Diagnostic Laboratory Immunology Endocrinology & Metabolism Gastroenterology Geriatric Medicine Hematology Infectious Disease Medical Oncology Nephrology Pulmonary Disease Rheumatology
Neurological Surgery	☐ NS	Neurological Surgery	☐ CCM	Critical Care Medicine
Nuclear Medicine	☐ NM	Nuclear Medicine	☐ NR ☐ RP	Nuclear Radiology (with ABRadiology) Radioisotopic Pathology (with ABPathology)
Obstetrics & Gynecology	☐ OBG	Obstetrics & Gynecology	☐ CCM ☐ GO ☐ MFM ☐ RE	Critical Care Medicine Gynecologic Oncology Maternal & Fetal Medicine Reproductive Endocrinology
Ophthalmology	☐ OPH	Ophthalmology		
Orthopaedic Surgery	☐ ORS	Orthopaedic Surgery	☐ HS	Hand Surgery
Otolaryngology	☐ OTO	Otolaryngology		
Pathology	☐ PTH ☐ ATP ☐ CLP	Anatomic & Clinical Pathology Anatomic Pathology Clinical Pathology	☐ BLB ☐ CP ☐ DMP ☐ FOP ☐ HEM ☐ IP ☐ MMB ☐ NA ☐ RP	Blood Banking Chemical Pathology Dermatopathology Forensic Pathology Hematology Immunopathology Medical Microbiology Neuropathology Radioisotopic Pathology
Pediatrics	☐ PD	Pediatrics	☐ DLI ☐ PDC ☐ CCM ☐ PDE ☐ PHO ☐ PNP ☐ PDP ☐ NPM	Diagnostic Laboratory Immunology Pediatric Cardiology Pediatric Critical Care Medicine Pediatric Endocrinology Pediatric Hematology-Oncology Pediatric Nephrology Pediatric Pulmonology Neonatal-Perinatal Medicine
Physical Medicine and Rehabilitation	☐ PM	Physical Medicine and Rehabilitation		
Plastic Surgery	☐ PS	Plastic Surgery	☐ HS	Hand Surgery
Preventive Medicine	☐ AM ☐ OM ☐ GPM	Aerospace Medicine Occupational Medicine Public Health & General Preventive Medicine		
Psychiatry and Neurology	☐ P ☐ N ☐ CHN	Psychiatry Neurology Neurology with Special Qualifications in Child Neurology	☐ CHP	Child Psychiatry
Radiology	☐ R ☐ DR ☐ TR ☐ RO ☐ RPH	Radiology Diagnostic Radiology Therapeutic Radiology Radiation Oncology Radiological Physics	☐ NR	Nuclear Radiology
Surgery	☐ GS	Surgery	☐ HS ☐ PDS ☐ SCC ☐ GVS	Hand Surgery Pediatric Surgery Surgical Critical Care General Vascular Surgery
Thoracic Surgery	☐ TS	Thoracic Surgery		
Urology	☐ U	Urology		

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SEAN M SMULLEN MD
RICKEY L SNIPES
STEPHEN N SNOW MD
DAVID A SOLFELT MD
PHILIP L SONDERMAN MD
DAVID A SORBER MD
JAMES P SPEICHINGER MD
KEITH B SPERLING MD
SHERYL K SPITZER-RESNICK MD
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TIMOTHY S STAACKE
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JEFFREY A STEPHENSON MD
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JULIE G THOMPSON DO
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MAURO J AGNELNERI JR MD
THOMAS J ANTLFINGER MD
EDUARDO G ARELLANO MD
JAMES A AVERY MD
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RICHARD J GAUTHIER MD
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ELSA B HORN-DOROIN MD
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JANE H KOLL-FRAZIER MD
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TAI HO KWON MD
EUGENE K LAMBERT MD
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JAMES J LE CLAIRE MD
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STEPHEN A MASSICK MD
HOWARD MAUTHE MD
F FULLER MC BRIDE MD
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ROBERT H MIKKELSEN MD
JOSEPH F MILLER MD
CLARENCE E MOORE MD
JOAN L MUELLER MD
WILBERT E MYERS MD
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JOHN G PARRISH JR MD
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LERTHAI PENGTOVONG MD
KARL L PENNAU JR MD
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WARREN M POST MD
JUDITH D PRUSKI MD
TEODORO M RAMOS MD
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MARIANO L ROSALES JR MD
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NONITO M SABLAY MD
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ROBERT W JONES MD
PREMAL M JOSHIPURA MD
HAROLD C KAPPUS MD
DONALD J KASH MD
SAMUEL R KATZ MD
RAYMOND W KNIGHT MD
EDGAR L KOCH MD
HARLOW F LA BARGE MD
BARRY LEFKOVITCH MD
WILLIAM H LIPMAN MD
LEIF H LOKVAM MD
CARROLL M MARTIN MD
RODRIGO A MATA JR MD
DAVID J MATTEUCCI MD
BRUCE M MAYER MD
JAIRO J MENDIVIL MD
LYLE D MILLIKEN JR MD
JOSEPH F MNUK MD
ANGELINA M MONTEMURRO MD
SURESH R NAIK MD
LIGAYA M I NEWMAN MD
MARVIN L NICE MD
LOUIS OLSMAN MD
SIMEON B ORTIZ MD
DANIELA M OSECKY MD
ROGER T PACANOWSKI MD
DIVAKAR B PAKKALA MD
JANE C PALLIN MD
JOHN S PALLIN MD
AFET T PAMUKCU MD
FEVZI S PAMUKCU MD
ANOO P PATEL MD
PRITI D PATEL MD
JOSEPH L PAUKNER MD
JOHN B PEARSON MD
CHARLES E PECHOUS JR MD
CLIFTON E PETERSON MD
WAYNE W PETERSON MD
RICHARD A POWELL MD
ANDREW T PRZLOMSKI MD
HUGH P RAFFERTY MD

WALTER C RATTAN MD
LEONARD M RAUEN MD
LAWRENCE J REIF MD
JOHN N RICHARDS MD
MICHAEL J RIZZO MD
WAYNE V RODEN DO
HERBERT G ROEHRICH MD
STANLEY R ROSEN MD
DAVID D RUEHLMAN MD
RICARDO M RUSTIA MD
JOHN G SANSON MD
CHESTER A SATTLER MD
VINCENT P SAVAGLIO MD
MICHAEL A SCHELLPFEFFER MD
JOHN P SCHMIDT MD
STEVEN M SCHWIMMER DO
NEIL A SHEPLER MD
FRANCIS D SHESKI MD
FLOYD F SHEWMAKE JR MD
JEAN M SHIMANEK MD
MORRIS SIEGEL MD
ROBERT J SMICK DO
PAUL G SPOTTSWOOD MD
WILLIAM C SROKA MD
JAMES O STEELE MD
WILLIAM J SWIFT SR MD
LEELA C THACHENKARY MD
JOHN D VAN LIERE MD
GILBERT S WADINA MD
RAYMOND G WELSCH MD
MICHAEL J WEMPE MD
THOMAS S WERBIE MD
FRANK C WILLIAMS JR MD
L MARK WILLIAMSON MD
BONNIE LEE WIRFS MD
RAYMOND W WITT MD
FREDRICK WOOD JR MD
GARY J ZAID MD
MITCHELL ZIARKO JR MD

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R MARIO ABELLERA MD
FRANK J ABERGER MD
WILLIAM A AGGER MD
UBALDO A ALVAREZ MD
HANS P ANDERSON MD
ARTHUR G BARBIER MD
WILLIAM D BATEMAN MD
JAMES C BAUMGAERTNER MD
EVERETT A BEGUIN JR MD
DENNIS G BIROS MD
WILLIAM A BLANK MD
CHARLES D BLANKE MD
SCOTT B BLANKE MD
LAURA L BLOOMQUIST MD
CHRISTOPHER P BORN MD
ARCHIE G BRITT MD
SCOTT D BRUNK MD
GARY L BRYANT MD
DELBERT M BUCHMAN MD
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NORMAN C SCHROEDER MD
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PETER J SIPPEL MD
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CHARLES R SZYMAN DO
RICHARD W THEOBALD MD
ROBERT F THORPE MD
JOHN A THRANOW JR MD
JOSEPH E TRADER MD
RICHARD A VAN DREEL MD
LAURENCE J VERLINDEN MD
STEPHEN L WELD MD
WAYNE F WHITE MD
JOHN C ZELDENRUST MD
RICHARD W ZUEHL MD

MARATHON

SAMIR L ABADEER MD
PHILIP R ALBERT MD
CHARLES R ALDEN MD
DALE B ANDERSON MD
JEROME C ANDRES MD
MARK W ASPLUND MD
DAVID K AUGHENBAUGH MD
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GORDON L BACKER MD
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HALDOR P BARNES MD
ELIZABETH G BARR MD
RICHARD D BARTHOLOMEW MD
SAILENDRA N BASU MD
JAMES J BEIER MD
KATHY P BELGEA MD
ROBERT E BENEDETT MD
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JOHN E BOBINSKI MD
STEVEN E BODEMER MD
ZAVEN C BOORNAZIAN JR MD
NICHOLAS C BOSCH MD
ADRIAN R BOURQUE MD
ENOCH B BRICK MD
G H BRISTER MD
RICHARD H BRODHEAD MD
PAT D BRYANT MD
RICHARD L BUECHEL MD
THURL C BURR JR MD
JOHN A BUTLER MD
ROBERT E CADWELL MD
VINOO CAMERON MD
JULIO C DAVILA MD
KENNETH L DAY MD
NORMAN F DEFFNER MD
JOEL R DE KONING MD
WILLIAM K DERNBACH MD
DONALD LEWIS DIXON MD
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ELLET H DRAKE MD
RICHARD S ENGELMEIER MD
HAROLD H FECHTNER MD
DAN H FIFIELD MD
JOHN V FLANNERY SR MD
JOHN V FLANNERY JR MD
JAMES M FOERSTER MD
ALEXANDER S FOLTZ MD
RICHARD N FOLTZ MD
D JOE FREEMAN MD
MARY JO FREEMAN MD
AXEL K FUCHS MD
THOMAS C GABERT MD
YOUSSEF H GABRIEL MD
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GERALD W GRIM MD
EDWARD H GROSHAN JR MD
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KAY A GRULING MD
WARNER H GUSTAVSON MD
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JOHN M HATTENHAUER MD
WILLIAM HENDRICKSON MD
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ARTHUR W HOESSEL MD
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FRANCIS C JOHNSON MD
WILLIAM W JONES MD
HENRY H KANEMOTO MD
ROBERT C KAUPIE MD
ORVILLE R KELLEY MD
JEFFREY F KESSEL MD
SUNGHA P KIM MD
TIMOTHY C KLAMMER MD
FREDERICK A KLEMM MD
KENNETH R KNUTSON MD
PETER TONG BAK KOH MD
EDGAR B KOSCHMANN MD
JAN GEORGE KOTYNEK MD
JAMES D KRAMER MD
DONALD H KRANENDONK MD
JOHN M R KUHN MD
JEFFREY A KURTZ MD
JEFFREY H LAMONT MD
DAVID L LARSON MD
TENNYSON G LEE MD
WOLFRAM G LOCHER MD
SUZANNE G H LOW MD
JULIE H LUKS MD
MADHU V LUTHRA MD
VINAY D LUTHRA MD
CHARLES F MAC CARTHY MD
WILLIAM M MAHONY MD
OTTO T MALLERY MD
SALLY S MATTINGLY MD
WILLIAM T MATTINGLY JR MD
BARRY A MAXFIELD MD
THOMAS O MILLER MD
WILLIAM C MILLER MD
RICHARD L MINNIHAN MD
MARK J MIRICK MD
ALBERT J MOLINARO MD
JOSEPH M MONACO MD
RICHARD T MOREHEAD MD
ERICH C MUEHLENBECK MD
DAVID K MURDOCK MD
RICHARD G NASH MD
WILLIAM C NIETERT MD
MAURICE J NORMAN MD
DAVID P NORTH MD
DONALD M NOWINSKI MD
DONALD M NOWINSKI JR MD
KEVIN J O'CONNELL MD
TEOFILO O ODULIO MD
DOUGLAS V OLMANSON MD
GERALD E OSBAND MD
WILLIAM R OWEN MD
THOMAS H PETERSON MD
ROBERT R POOLE MD
RICK R REDING MD
THOMAS N RENGEL MD
ALAN C REYNOLDS MD
LAWRENCE J ROSSMAN MD
STEPHEN C ROUSH MD
FRANK J RUBINO MD
J GARRY SACK MD
ROXANA O SAEGER MD
STEPHEN L SAEGER MD
IVAN B SCHALLER MD
GERALD H SCHROEDER MD
ELLEN M SCHUMANN MD
DANIEL M SEYBOLD MD
RICHARD C SHANNON MD
BRIAN D SMITH MD
BURTON K SMITH MD
WILLIAM J SOMERSET DO
JOHN R SORENSON MD
KAY B SORENSON MD
STEPHEN M SPELTZ MD
GIZELLE A SPURGEON MD
ALBERT H STAHMER MD
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IVAN STANKO MD
SHELLEY R STANTON MD
THOMAS A STARKEY MD
STEVEN C STODDARD MD
RAYMOND J SZMANDA DO
DAVID B TANGE MD
GEORGE R TANNER MD
GEOFFREY TAYLOR MD
JUDITH E WADE MD
ARTHUR M WALDMAN MD
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JOHN F WEBB MD
DENNIS W WESTERN MD
DARRELL L WITT MD
GEORGE J WITTEMAN MD
LEONARD H WURMAN MD
EARL W ZABEL MD
PHILIP M ZICKERMAN MD
GARY A ZIMBRIC MD

MARINETTE-FLORENCE

JAMES M ARNOLD MD
ANTOINE BARRETTE MD
NEIL C BINKLEY MD
CLARK H BOREN MD
JAMES A BOREN MD
JOHN P BRIODY MD
STEPHEN C CASELTON MD
SHERWOOD A COLE MD
DAVID D DARCY MD
GERALD W FAVRET MD
J BRYAN FLYNN MD
THOMAS F FOLEY MD
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ALICE M LEE MD
RANDALL W LEWIS DO
DEAN A MAGNIN MD
ELWYN C MANTEI MD
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RAYMOND J ROGERS MD
FREDERICK SOBIERAY DO
MICHELLE RENEE STORMS MD
BURNELL D STRIPLING MD
JAMES TANDIAS MD
JUNG-NAN TSAI MD
ROBERT S VAN HOWE MD
HENRY VEIT MD
LEONARD R WORDEN MD
KENNETH H YUSKA MD

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NINETTE W ABDALLAH MD
WADIE A ABDALLAH MD
AMANI A ABDEL-MAGUID MD
SANDRA L ABLER
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JULIAN E ABRAMS MD
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JOSEPH A ARMAH DO
SARA ARNOLD MD
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JERRY M BLOOMSTEIN MD
WALTER P BLOUNT MD
JAMES D BOBLIN MD
HARVEY M BOCK MD
CHARLES A BOCKOFF MD
AARON C BODNER MD
WARREN C BOGLE SR MD
DRAGAN P BOGUNOVIC MD
RHONDA R BOLDT MD
JOHN P BONAVIA MD
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LANDY E BONELLI MD
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WILLIAM A BRAH MD
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TERESA D BROCK
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CAROL M BROWN DO
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JAMES M CERVENANSKY MD
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ANDREW CHAI
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RAJA G CHANDRASEKHARAN MD
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CLARENCE P CHOU MD
RICHARD H CHRISTENSON MD
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JEROME R CORNFIELD MD
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PETER J COTSIRILOS MD
JULIE M COTTRAL MD
BART L COX MD
THOMAS J COX MD
DEBORAH L CRABTREE

POLLY H CRAFT MD
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FRANK L DE GROAT JR MD
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ALFONSO B DEIPARINE JR MD
FRANCISCO Y DEL MAR MD
PATRICIA L DE MARAIS MD
MARTIN J DENIO JR MD
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BERTRAM H DESSEL MD
JEANMARIE P DEUSTER MD
ANTHONY W DEUSTER
MARION L DE VAULT MD
DOUGLAS M DEWIRE MD
BARBARA DEWITZ MD
ROBERT M DHEIN MD

ALI A DIBA MD
FREDERICK T DICKINSON DO
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PETER DIONISOPOULOS
ROBERT A DI ULIO MD
AJIT B DIVGI MD
JOHN P DOCKTOR, DDS MD
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RAY R DZELZKALNS MD
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J ROBERT FLAMINI MD
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JEROME W FONS JR MD
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JAMES W FULTON MD
SAMUEL L GABBY JR MD
REYNALDO P GABRIEL MD
FREDERICK G GAENSLEN MD
DINSHAH D GAGRAT MD
IVARS J GAILANS MD
MIGUEL T GALANG JR MD
ABEL GALAVIZ MD
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MARK W GARRY MD
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PIERO G GASPARRI MD
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IRWIN E GAYNON MD
VICTORIA OLSON GAYNOR MD
GEORGE DEMETRIOS GEANON MD
SUSAN GEDANKE
DANIEL J GEENEN
SUZANNE GEHL MD
MARY J GEIGER
NICHOLAS F GEIMER MD
JACK E GEIST MD
MARK W GENESER MD
AYAD M GEORGE MD
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JANE M GERACI MD
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RUEDI P GINGRASS MD
MARK J GIOVANELLI DO
EROL F GIRAY MD
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J JAY GOODMAN MD
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THOMAS E GOODRICH MD
JAMES S GOODWIN MD
KANDAVAR M GOPAL MD
MICHAEL GORCZYNSKI DO
ARNE C GORDER MD
NORVAN F GORDON MD
ELIZABETH M GORE
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ANDREA L W GREEN MD
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MAURICE GREENBERG MD
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ERIC M D GREENMAN
FERNANDO Q GREGORIO MD
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JOSEPH L GRIESHOP MD
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DENIS W GRILLO DO
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DIANE M GRONSKI
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JOHN P HANSON JR MD
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MAURICE A HARDGROVE MD
HAROLD F HARDMAN PhD MD
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RAYMOND HARKAVY MD
CHARLES JOHN HARKINS MD
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BARBARA A HARKNESS MD
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EVERIN C HOUKOM MD
JEROME W HOUSE JR MD
WILLIAM F HOVIS JR MD
LAWRENCE A HOWARDS MD
JACQUELINE COATES HOWELL MD
HARRY A HOYEN III
SUPING J HSIEH MD
TONG HUA-DI MD
CHUONG C HUANG MD
TIFFANY ANNE HUBBARD
STEPHEN M HUEBLER
MARK A HUFFMAN MD
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CLARA V HUSSEY MD
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MARYAM B IVANOFF
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SUBBANNA JAYAPRAKASH MD
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CYNTHIA L JONES-NOSACEK MD
MORTON JOSEPHSON MD
SHERI JUNGERS
CHARLES L JUNKERMAN MD
INGRID E JUREVICS MD
GEORGE H JURGENS MD
AUGUST J JURISHICA MD
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GERALD J KALLAS MD
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M LAXMAN KAMATH MD
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BRADLEY H KRANENDONK
CARL L KRASNIAK MD
RONALD KRAUTKRAMER MD
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SHARLENE KREITLOW
LOUIS H KRETCHMAR MD
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ROBERT L KRIPPENDORF
ASHOK K R KRISHNANEY MD
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CLIFFORD LIDDLE JR MD
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LAWRENCE P MC KEAN MD
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ERIC R MC MILLAN
PATRICK K MC NAMARA MD
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RICHARD K MC NUTT MD
BRIAN P MC SORLEY MD
PATRICK J MC WEY MD
JAMES A MEANS III MD
GEORGE H MECOUCH JR DO
PETER M MEDVED MD
MARK A MEIER MD
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GALE L MENDELOFF MD
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KIM A MERRIMAN MD
JOANNE E METOFF MD
MARY E METROU MD
THEODORE F MEVES MD
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WILLIAM R MILLS MD

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JEFFREY L MINIKEL MD
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PAUL L MINOR MD
MAHMOOD MIRHOSEINI MD
MARSHAL J MIRVISS MD
DAVID A MISORSKI
SURESH K MISRA MD
LEROY MITCHAM MD
SAMIR K MITRA MD
RAM K MITTAL MD
JACQUELINE S MLSNA MD
WALTER L MODAFF MD
RITA D MODY MD
MORRIS MOEL MD
MARGARET L MOEN MD
BRIAN K MOLONEY
HERMES E MONATO MD
JOSE V MONTENEGRO III MD
ROBERT P MONTGOMERY MD
M KELLOGG MOOKERJEE MD
GEORGE E MOORE MD
J STEVEN MOORE MD
JORDAN A MOORE MD
ROLAND MORE
JOSE M MORENO MD
LUZ S MORENO MD
LLOYD W MOREY DO
MARY S MORRIS MD
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HOWARD V MORTER MD
MARK J MOSKOWITZ MD
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JOSEPH A MUFSON MD
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DONALD C MULLEN MD
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CECILIA M MULTHAUF MD
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EDNAN MUSHTAQ
MICHAEL MUZI MD
LYNN A MYERS III MD
BAHRAM NAMDARI MD
BENJAMIN G NARODICK MD
DAVID S NASH MD
KAMAL F NASSIF MD
DENIS C NATHAN MD
JEFFREY P NAUS MD
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GUADALUPE NEGRON-ZEHEL MD
JAMES R NELLEN MD
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SAM P NESEMANN MD
DANIEL T NESS MD
MARY E NESS MD
MARGARET NEWTON MD
SON N NGUYEN MD
IMRAN K NIAZI MD
CARTER J NICHOLS MD
MARK W NIEDFELDT
GREGORY M NIERENGARTEN DO
DONALD D NIMMER MD
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GILBERT J NOCK JR MD
PATRICK J NOONAN MD
JILL O NOREUIL MD
ARTHUR G NORRIS MD
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JOSEPH P NOTHUM MD
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JAMES R O'CONNELL MD
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THOMAS M O'CONNOR MD
HERBERT W OECHLER MD
JOSEPH P O'GRADY JR MD
MICHAEL G O'GRADY MD
KENNETH W OLANDER, PhD MD
VIGGO B OLSEN MD
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RICHARD J O'MALLEY MD
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JOHN P OPPENHEIMER MD
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JANET L OSBORNE
IRENE M O'SHAUGHNESSY MD
HAROLD H OTTENSTEIN MD
MARY F OTTERSON MD
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SAMUEL J OTTO MD
ROY W OVERTON III DO
DAVID W OVITT MD
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SAMUEL G PERLSON MD
LAURA P PERRI
ROBERT W PERZIGIAN DO
PAUL A PETERSON MD
NANCY B PETRO MD
CHARLES GIA PHAN
ARVIND G PHANSALKAR MD
WILLIAM J PIER JR MD
V DOUGLAS PIERCE JR MD
MITCHELL H PINCUS MD
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TOD J POREMSKI MD
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GLENN BRECK POTEAT MD
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KARL A POTERACK MD
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WILLIAM R PRICKETT MD
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HARRY PROSEN MD
WILLIAM F PRUDLOW MD
MARION E PRUITT MD
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THOMAS C PUCHNER JR MD
JAMES M PUGELY MD
DOMENIC J PULITO MD
ROBERT F PURTELL SR MD
ROBERT F PURTELL JR MD
RICHARD J QUALY MD
ANDRES F QUITZON MD
RITA M RABENBERG MD
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ELEANOR V RABIN MD
FRED S RACADIO MD
RUTH M RADEMACHER MD
CYRUS K RAFII MD
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FREDERICK H REESER JR MD
PATRICK T REGAN MD
CHRISTOPHER S REHAK
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PAUL HAROLD REHNSTROM DO
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SUSAN M RETZACK MD
CHARLES F REUBEN MD
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PRIMITIVO I REYNALDO MD
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JEANETTE RICHARD MD
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MARCIA J S RICHARDS MD
MAUREEN A SEELEY RICHARDS MD
HAROLD K RICHES DO
MARK A RICHETTO MD
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ROBERT T ROHLOFF MD
LISA A ROMEO
SAM J W ROMEO MD
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QUENTIN F ROSE MD
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JOHN M ROSEBUSH MD
LAURA B ROSEMAN
DAVID M ROSENBERG DO
MURRAY ROSENBERG MD
AMY M ROSENBLATT MD
ANN K ROSENTHAL MD
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ARTHUR C SANDERS JR MD
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ERIC W SCHMIDT MD
HERBERT G SCHMIDT MD
JOHN G SCHMIDT MD
ROBERT M SCHMIDT MD
ROBERT S SCHMIDT
SUZANNE C SCHMIDT MD
DAVID D SCHMITT MD
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DONNA L SCHMITZ MD
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GEORGE R SCHNEIDER MD
KATHLEEN M SCHNEIDER MD
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J ARTHUR SEAHOLM MD
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VINODKUMAR S SHAH MD
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TERRENCE J WILKINS MD
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DELORE WILLIAMS MD
D MACLEAN WILLSON MD
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KATHRYN J WISIALOWSKI
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GERHARD L WITTE MD
WILBERT WIVIOTT MD
DOUGLAS C WONDER DO
H HARPSTER WONDER DO
TRUDY G WONG
LINDA S WOODARD MD
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GEORGE S WOODWARD MD
MARVIN R WOOTEN MD
GEORGE J WORM MD
LEONARD W WORMAN MD
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DENNIS WORTHINGTON MD
ROBERT L WORTMANN MD
HOBART H WRIGHT MD
IRVING V WRIGHT MD
JAMES ARTHUR WRIGHT MD
HUI T WU MD
JOHN F WYMAN MD
SIDNEY K WYNN MD
JOHN T YAGOW DO
RUSSELL S YALE MD
ALBERT C YARD MD
MONA YASSIN MD
ALBERT S YEE MD
CONSUELO A YEE MD
CLYDE W YELLICK MD
DAVID O YENERICH MD
JAMES E YOUKER MD
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MICHAEL M C YOUNG MD
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LOREN J YOUNT MD
N JOHN YOUSIF MD
JEFFREY CHI-SENG YUE MD
ANTHONY G YUG
FRANCES M YUHAS
HAFIZ M YUNUS MD
THOMAS E ZABORS MD
ALFREDO P ZAMORA JR MD
DEBRA A ZANDT-STASTNY MD
SHAHRZAD S ZARGHAMEE
ALAN R ZARKOWER DO
DAVID H ZARWELL MD
RAYMOND C ZASTROW MD
RAYMOND J ZASTROW MD
K ZAVARAS-ANGELIDOU MD
WILLIAM R ZAVITZ MD
HOWARD J ZEFT MD
TIMOTHY J ZELKO DO
ANTOINETTE MARIE ZELL MD
CLIFFORD L ZELLER MD
CHRISTOPHER J ZELLMER
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CARL ZENZ MD
AIVARS A ZEPS MD
DAVID W ZERRIEN MD
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ANTHONY P ZIEBERT MD
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BURTON M ZIMMERMANN MD
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JAMES S ZIOLKOWSKI MD
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DIANNE L ZWICKE MD

MONROE

HELEN HAENG-KANG AHN MD
PAUL G ALBRECHT MD
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ROLANDO R BUAN MD
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JANET S CHESTNUT MD
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CLARENCE E KOZAREK MD
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DONALD J MEYER DO
ROBERT A PFEFFER MD
GEORGE F SAVAGE MD
JOSEPH A SEIDL MD
MARK D SHEWCZYK MD
THOMAS J SHEWCZYK MD
THOMAS WALL MD
BRUCE E WEFFENSTETTE MD

PIERCE-ST CROIX

ALEX P AVESTRUZ MD
NERISSA L AVESTRUZ MD
JAMES R BEIX MD
MILTON A CORNWALL MD
JAMES L CRAIG MD
DAVID O DE GEAR MD
CHARLES W DOCTER MD
JOHN C DOCTER MD
DONALD W DOHNALEK MD
COLIN J DRURY MD
ERNEST M DRURY MD
KATHLEEN S FARAH MD
RUBEN E FERMIN MD
PAUL GLEICH MD
ROLAND M HAMMER MD
BRUCE G HANSON MD
PAUL S HASKINS MD
ROBERT B JOHNSON JR MD
EUGENE R JONAS MD
A HAMID KHAN MD
FREDERICK B KLAAS MD
BECKY L KLEAGER MD
HOWARD J LANEY MD
ALLEN W LIMBERG MD
VICKI L MAYER MD
NEAL A MELBY MD
A GALE MURTY MD
ENID A OKOKON MD
DAVID L OLSON MD
JAMES C PALMQUIST MD
GEORGE M POPE MD
JOSEPH E POWELL MD
STEPHEN R SCHMITZ MD
FRANK A SPRINGER MD
LEONARD B TORKELSON MD
DAVID M WILHELM MD
DAVID M WOESTE MD

POLK

ORRIN N ARNESON MD
MARSHA J BEYER MD
WILLIAM D BEYER MD
MARK E BOYKEN MD
WILLIAM R BYRNE MD
LORNE A CAMPBELL JR MD
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PAUL F ELBING MD
KENNETH LEE GALEWYRICK MD
JUDY M GRISARD MD
CARL W HANSEN MD
ALLEN S HANSON MD
GAIL J HANSON MD
PATRICK C HEDLUND MD
THOMAS E HINCK MD
CRAIG TIMOTHY JOHNSON MD
JAMES R KRAVIG MD
ARNE T LAGUS MD
MICHAEL T G MARRA MD
JAMES S MOORE JR MD
LEO K NELSON MD
LLOYD L OLSON MD
DAVID ALAN PERRY MD
EVAN H PETERSON MD
ARNOLD S POTEK MD
FRED B RIEGEL MD
MARTIN L RIMESTAD MD
MICHAEL R SCHMIDT MD
DONALD F SCHWAB MD
JOHN O SIMENSTAD MD
MARWOOD E WEGNER MD
FREDERICK L WHITLARK MD
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PORTAGE

GEORGE H ANDERSON MD
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FONG CHUNG CHANG MD
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RACINE

A CHARLES ALEXANDER MD
RONALD L ALLEN MD
BARRY M ALTENBERG MD
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DAVID J BAKER MD
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S MARSHALL CUSHMAN JR MD
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STANLEY M ENGLANDER MD
LIEF W ERICKSON MD
LIEF W ERICKSON JR MD
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LOUIS E FAZEN MD
DENNIS E FEIDER MD
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RICHARD J FOGLE MD
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H CRAIG BOSWELL MD
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STEVEN S CHOUNG MD
DANIEL M CLARK MD
DAVID A COHEN MD
DAVID K CRISWELL MD
ROBERTO J DANOCUP MD
GREGORY L DARROW MD
RAM DAS MD
KEVIN G DERUS MD
JAY S DE VORE MD
STEVEN D DIAMOND MD
ROBERT W DIBBLE MD
JOVAN L DJOKOVIC MD
ROBERT K DODGE MD
JOHN J DOWNING MD
GERALD R DRUCKREY MD
PAUL F DURKEE MD
ANNE E DYSON MD
ERIC EISENBERG MD
WARREN R ELLISON MD
STEVEN L FALK MD
VICTOR S FALK JR MD
STEVEN J FASS MD
W FITZGERALD MD
JANE E FOSSUM MD
JORDON FRANK MD
SAMUEL L FRAZER MD
PAUL F FRECHETTE MD
WILLIAM S FREEMAN MD
JAMES K FREY MD
WARREN E FRICK MD
LELAND J FROM MD
DAVID B GATTUSO MD
DAVID L GIBSON MD
MARK L GOELZER MD
KENNETH I GOLD MD
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ROBERTA R HALLQUIST MD
THOMAS R HANSEN MD
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JOHN F HOLMES MD
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FRANCIS L KELLER MD
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TRILOK S KHANNA MD
ROGER A KLEIN MD
DONALD KNEPEL MD
KRISTI E KNUIJT MD
RICHARD L KOCHELL MD
GORDON E KRONQUIST MD
LEO W LAKRITZ MD
THOMAS J LANG MD
JONG MAN LEE MD
PETER U LEE MD
HARLAN M LEVIN MD
ROGER G LIM MD
GEORGE H LIND MD
JAMES P LONG MD
ERIC R LYERLA MD
STEVEN P MACIOLEK MD
NALINI MADAN MD
SURESH K MADAN MD
JOHN J MAHER MD
TIMOTHY A MANNING MD
ROBERT F MATZKE MD
THOMAS G MC CALL MD
EDWARD R MC NAIR MD
GREGORY MEDIS MD
PATRICK D MEYER MD
DALE E MILLER MD
EDWARD C MILLER MD
JAMES R MILLER MD
JOHN C MUNDY MD
DAVID C MURDY MD
BRUCE K NAGLE MD
KATSUMI NEENO MD
HERMAN D NIENHUIS MD
BLAINE B NOWAK MD
JAMES N O'BRIEN MD
PAUL K ODLAND MD
LARRY M OJEDA MD
SUSAN J OLSON MD
ERLAND R OTTERHOLT MD
YON DOO OUGH MD
RICHARD S OVERTON MD
BRUCE R PEARSON MD
JOHN F PEMBER MD
MARK S PERPICH MD
DANIEL T PETERSON MD
ARTHUR C PLAUTZ JR MD
WILLIAM H POLLARD JR MD
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WILLIAM A PRUETT MD
MARSHALL F PURDY MD
FELIPE L QUI MD
HARRY R RAMSEY MD
RAMACHANDRA RAO MD
ESTHER L RAU MD
ARTHUR L REINARDY MD
EVERETT W REINARDY MD
DAVID S ROWE MD
DALE E ROZEBOOM MD
STEPHEN R RUDISILL MD
FRANCIS R RUSSO MD
RAFAEL S SALADAR MD
FERNANDO E SALVADOR MD
RICHARD J SANDERSON MD
THOMAS S SARGEANT MD
WALTER A SCHOLTEN JR MD
JACK D SCHROEDER MD
ROBERT R SCHWAEGLER MD
PAUL M SEGAL MD
CHARLES E SHEARER MD
THOMAS M SHEARER MD
P RICHARD SHOLL MD
PATRICK L SITORIUS MD
RANDY SMEJKAL MD
DAVID A SMITH MD
DAVID D SMYERS MD
HERBERT M SNODGRASS MD
MYRON G SPOONER MD
JOSEPH C SPRINGBERG MD
WILLIAM H SQUIRES MD
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SERAFIN B TERUEL MD
JEFFREY C THOMAS MD
PAUL C TREGONING MD
ALLEN O TUFTEE MD
ALLEN H TWYMAN MD
JAMES N VOGEL MD
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KENNETH WALLMEYER MD
STEPHEN C WERNER MD
WILLIAM P WEST MD
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TERRANCE L WISEMAN MD
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RUSK

REBECCA J ALLEN MD
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DOUGLAS M DE LONG MD
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ERIC A NIMMO MD
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EMIL B STEINKE MD
MAURICE L WHALEN MD
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DAVID E BURNETT MD
HAAKON P CARLSON MD
GERARD J CHRABASZCZ MD
JAMES W CLAY MD
HAROLD L CONLEY MD
JOHN A DE GIOVANNI MD
DALE P FANNEY MD
RENATO T FAYLONA MD
THOMAS R FLYGT MD
IHOR A GALARNYK MD
EDWIN J HAMMER MD
ROBERT G HANSEL MD
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MELVIN F HUTH MD
STEVEN J JOHNSON MD
GERALD C KEMPTHORNE MD
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DIANA L KRUSE MD
DAVID P KUTER MD
JAMES M LEWIS MD
JAMES D MATHERS MD
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THOMAS T MIDTHUN MD
ROBERT H MORTIMORE MD
M MURPHY-GREENWOOD MD
OTTO V PAWLISCH MD

MICHAEL D PLOOSTER MD
LEE M ROBAK MD
ARNOLD N ROSENTHAL MD
MICHAEL R SCHONFELD MD
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GIBBS W ZAUFT MD

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LLOYD M BAERTSCH MD
MODESTO M FERRER MD
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MIGUEL-ANGEL JIMENEZ MD
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SHEBOYGAN

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THOMAS M AMBELANG MD
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ARVED O ASHBY MD
DAVID KING AYMOND MD
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RIECK W BEIERSDORF MD
VIJAY K BERI MD
ROBERT L BERNSTEIN MD
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COLE S NORTHUP MD
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WILLIAM L TRAGER MD
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TIMOTHY J VAN LIERE MD
WILLIAM G WAGNER MD
WILLIAM J WAGNER DO
PHILIP H WALKER MD
STEPHEN J WERNER MD
STEPHEN C WESTCOTT MD
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B TUCKER WOODSON MD
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DE VERNE W VIG MD
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NESTOR C ALABARCA MD
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MARK R WESSLING MD
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OTTO A WIEGMANN MD
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DONALD L WOOD MD
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JAMES A YENGER DO
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EARL L ANDERSON MD
PAULINO G BELGADO MD
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JOSEPH W WEBER MD
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BRUCE R ABRAMS MD
HERBERT M ALLEN MD
MAMOUN B AL-NOURI MD
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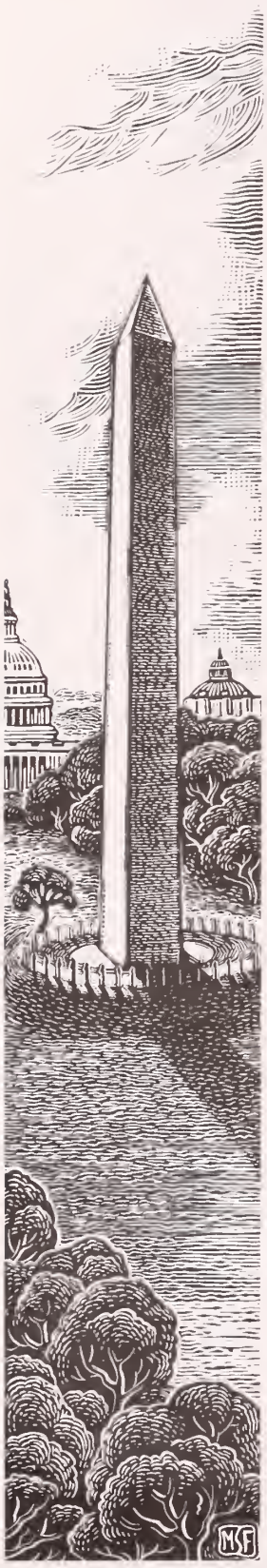

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a thousand visionary physicians across the nation bestowed a commemorative stone carving to the Washington Monument. This patriotic display symbolized their unrelenting devotion to a new republic founded on freedoms—including the freedom to practice medicine for the best possible health of all its people. *Today your help is needed to restore this symbol of our profession.*

Because the commemorative stone has suffered from severe erosion and defacement, the American Medical Association is launching a campaign to raise money from physicians to restore this symbol of medicine for the National Park Service. Every contribution made to this effort will serve as a statement of each physician's personal affirmation and commitment to health and medicine in America.

Please take part in rededicating the commemorative stone as a shining example of the strength of medicine in a free and strong society. Contributors who donate $100 or more will receive a memorial replica of the carving as a token of appreciation. Send your tax deductible contribution for this timeless symbol today. Thank you.

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All donations are tax deductible. All contributions will be publicly recognized in an unveiling ceremony for the new stone when it is fully restored.

Thank you for your contribution.

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406.
11tfn/87

Family Practice—Madison, Wisconsin. Eleven-year-old staff model HMO has a family practice position available. We offer a very attractive practice setting with reasonable scheduling, excellent salary, and benefits. Contact John Hansen, MD, Medical Director, Group Health Cooperative, One South Park, Madison, WI 53715; ph 608-257-9700.
12tfn/88

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563.
10tfn/88

We need three forward-looking physicians (general surgeon, orthopedic surgeon, OB/GYN) to join our growing 16-person group located in the beautiful upper St Croix River Valley. Just 40 minutes from the fine culture of the Twin Cities, St Croix Falls, Wisconsin, offers outdoor recreation, nationally acclaimed schools, moderate home prices, and friendly neighbors. Have the best of both worlds! Contact: Tom Hinck, MD, at 715-483-3221 or Jim Bigogno, Administrator, at 800-642-1336. p8–9/89

Internist—BC/BE. Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs or subspecialists in internal medicine. Send CVs to Michael Sergi, MD, 14 North Main St, Fond du Lac, WI 54935. p8–12/89;1/90

RATES: 50¢ per word, with a minimum charge of $20.00 per ad. BOXED AD RATES: $25.00 per column inch. *All ads must be prepaid.*

DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg*, copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Orthopedic surgeons, Wisconsin. Marshfield Clinic, a multi-specialty group practice with over 300 physicians, is seeking BE/BC orthopedic surgeons to join expanding regional centers. Positions available in two locations; one in northwestern Wisconsin within 90 miles of Minneapolis, and one a group practice of 25 physicians in north central Wisconsin, approximately 1½ hours from Lake Superior. Communities offer exceptional recreational, cultural, and educational opportunities. Compensation package with starting salary up to $149,100 combined with outstanding fringe benefit package totals in excess of $200,000. There is no buy-in or start-up expense. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Ave, Marshfield, WI 54449 or call collect at 715-387-5376. 8/89

Orthopedics, internal medicine. A progressive 126-bed, two-hospital system seeking the above specialties to establish practices in the Iron Mountain area of Michigan's beautiful upper peninsula. Must be board eligible or certified. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO_2 laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4500. 8–9/89

General internist. Marshfield Clinic, a multi-specialty group practice with over 300 physicians, is seeking BE/BC general internists to join expanding regional centers. Practice opportunities range in size from multi-specialty groups of 11 to 25. Positions available in three locations. One in northwestern Wisconsin, 90 miles from Minneapolis; one in north-central Wisconsin in close proximity to the UP of Michigan and Lake Superior, and one in central Wisconsin within 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe benefit package is outstanding. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Ave, Marshfield, WI 54449 or call collect 715-387-5376. 8/89

Family practice opportunities in a group setting. Located in a family-oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, president & CEO, Clintonville Community Hospital, 35 N Anne St, Clintonville, WI 54929; ph 715-823-3121. p7–12/89

Michigan's Heartland: 259-bed community hospital in college town of 100K seeks BE/BC, OB/GYN to develop hospital-based practice w/university clinical faculty appointment. Minimal teaching and administrative responsibilities allow focus on patient care. Compensation includes negotiated salary, benefits, and administrative support. Contact Therese O'Brien at Tyler & Company, 404-641-6411. p8/89

Family practice. Marshfield Clinic, a multi-specialty group practice with over 300 physicians, is seeking BE/BC family practitioners to join expanding regional centers. Practice opportunities range in size from single specialty groups of three to multi-specialty groups of 25. Positions available in six locations; two in northwestern Wisconsin within 70 and 90 miles of Minneapolis; two in north central Wisconsin within 80 and 90 miles of Lake Superior; and two in central Wisconsin with 25 and 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe benefit package outstanding. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Ave, Marshfield, WI 54449 or call collect at 715-387-5376. 8/89

Emergency room position just south of Milwaukee. Group covers two ER and walk-in. Competitive salary and full fringes. Contact: J. Linstroth, MD, 414-835-7761. 8tfn/89

Pediatrician, Ob/Gyn, psychiatrist, family practitioner, general surgeon. Growing 16-physician, multi-specialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity after one year. Come grow with us! Contact John T. Henningsen, MD, Indianhead Medical Group, Ltd, 1020 Lakeshore Dr, Rice Lake, WI 54868; ph 715-234-9031.
8–10/89

NEW PHYSICIANS
FOR WISCONSIN
is seeking

- Family Physicians
- Pediatricians
- Orthopedic Surgeons
- Internists
- General Surgeons

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UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7–12/89;1–6/90

Physicians Exchange

continued

Internist with or without subspecialty interests. Board-certified or eligible to join a well-established nine-man expanding multi-specialty group. Location is in a southeastern Wisconsin city of 36,000 with access to a large inland lake. Initial salary plus percentage as an associate. Full status in service corporation with shared overhead and an incentive orientated formula after the first year. Please contact D. L. Lawrence, Medical Director at Sharpe Clinic, SC, 92 East Division St, Fond du Lac, WI 54935. Phone number 414-921-0560, collect. p3–8/89

Nephrologist. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 7tfn/89

Family practitioner to join three physician group in Lake Mills on Interstate 94 and beautiful Rock Lake in southern Wisconsin. Resort area. Competitive salary and fringe benefits. Contact H. Leering, MD, 120 E Oak St, Lake Mills, WI 53551; ph 414-648-2391. p6–10/89

Northern Wisconsin
Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

General surgeon, BC/BE w/thoracic and/or vascular interest to replace surgeon in eight-member group in SE Wisconsin. Competitive salary and benefit package. Partnership after one year. Send CV and brief letter of expectations to Oakbrook Family Physicians SC, 1201 Oak St, West Bend, WI 53095. p6–8/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

Family practice (BC/BE). Excellent opportunity to join a busy and progressive, 5-physician family practice group in south central Wisconsin. In addition to the growing city of 15,000 being located on a lake in an excellent recreational area it also has its own full array of cultural events. Nearby metropolitan areas include Madison (50 min) and Milwaukee (70 min). Excellent medical community with modern 100-bed hospital, full-time ER and ready access to most subspecialties. Guaranteed first year salary with incentive bonus and opportunity for ownership after one year. Excellent fringe benefits include moving expense, insurance, CME, etc. Contact Chad Burchardt, Business Manager, Medical Associates of Beaver Dam SC, 1200 N Center St, Beaver Dam, WI 53916; ph 414-887-7101. p7–9/89

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

Urgent care-occupational. Park Crest Medical Clinic, a multi-specialty clinic in suburban Milwaukee, has an immediate opening for a physician to serve its occupational and urgent care needs. For more information please contact Wayne H. Merchle, 2665 S Moorland Rd, New Berlin, WI 53151; ph 414-786-1199. 7–8/89

Family practitioner
A quality, small hospital in a lakeside community within 45-minute drive of Minneapolis, Minnesota, is offering a first-year minimum salary of $50,000 plus 37 percent of adjusted revenues, four weeks vacation, two weeks CME, life and disability insurance, a 401(K) pension plan, and malpractice insurance. Cross-coverage provided. Subspecialty back-up available at a nearby sister facility. Other practice opportunities available. Call Wanda Parker: toll-free 1-800-221-4762, or collect, 212-599-6200. 8/89

We are looking for well-motivated PAs, which we will fully train in the treatment of venous diseases. Great patient rapport and manual dexterity a must. Excellent working conditions. Monday to Friday 40 + hour work week. No call. No weekends. Very competitive salary plus bonus and benefits. Required NYS Registration and Certification. If you are interested please contact Donna Lisciandro at 212-249-7612 or Dr Stodolski at 212-876-9284. Please send CV to Donna Lisciandro, 430 E 66th St, New York, NY 10021. 7–9/89

Aspen Medical Group, an independent, multi-specialty group with eight clinic locations in the Minneapolis and Saint Paul metropolitan area, seeks BC/BE associates in family practice, internal medicine, pediatrics, obstetrics/gynecology, orthopedic surgery, and urgent care. Excellent benefits, reasonable call and clinic responsibilities, highly competitive income potential. Contact: Maureen Reed, MD, Chief of Staff, Aspen Medical Group, 1020 Bandana Blvd, West, Suite 100, Saint Paul, MN 55108; ph 612-641-7178. 7–9/89

Northern Wisconsin
Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Fellowship in addictionology
Fellowship offered in addictionology for MDs orDOs interested in diagnosis and treatment of alcohol and drug abuse problems. Fellow will be involved in all aspects of alcohol and clinical dependency rehabilitation to include:
Primary patient evaluation
Diagnosis treatment protocols
Daily rounds
Counseling
Psychiatric evaluation
Group therapy
Staffing
Seminars
Stipend $27,000. Interested candidates please contact Diane Chase, De Paul Hospital, 4143 S 13 St, Milwaukee, WI 53221. p8–989

Physicians Exchange

continued

Pediatrics. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 7tfn/89

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Black River Falls, WI
An excellent opportunity exists for two BC/BE family practitioners to join a quality nine-physician, multi-specialty group as a result of increased demand for services. Black River Falls is the gateway to beautiful Indianhead vacation country. The clinic provides medical technology equal to that in urban settings in a small community where we treat our patients like neighbors, not numbers. Call is equally shared with first call weekend coverage provided by the hospital. We offer a small-town friendly atmosphere with excellent compensation guaranteed and time off to enjoy your family and hobbies. Metropolitan areas are easily accessible within one hour via interstate highway. Send CV or contact John M. Drace, Administrator, 610 W Adams St, Black River Falls, WI 54615; 715-284-4311. 8-10/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Student health. Opening for primary care internist or family physician available immediately. Accredited facility provides medical services for 18,000 students. Full-time 11 month position. Competitive salary/benefit package and 40 hour week. Illinois license and board eligible/certified. Search continued until position filled. Contact Glenn Weiss, MD, Student Health Service, Illinois State University, Normal, Ill 61761, 309-438-8655. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer. 7-9/89

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multi-specialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Stuart R. Lancer, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. c4;p5-7;8-10/89

Beloit Clinic, SC, an expanding multi-specialty group in southern Wisconsin college town is seeking a physiatrist and orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J. F. Ruethling, Administrator, 1905 Huebbe Pkwy, Beloit, WI 53511; ph 608-364-2200. 7-9/89

Family practice-internal medicine-OB/GYN

Attractive opportunities (many on lakes) for BC/BE physicians in Michigan, Wisconsin, and Indiana. Contact Bob Strzelczyk to discuss your practice requirements and these positions.

Strelcheck & Associates, Inc
12724 N Maplecrest Lane
Mequon, WI 53092
800-243-4353;
414-243-9500 WI (collect) p7-8/89

Family practitioner to associate with a highly successful two-physician (one physician near retirement) rural family health center with an excellent support staff and unlimited potential. Complete fee-for-service practice with excellent hospitals and specialty support only minutes away. Guaranteed salary, incentives and benefits tailored to fit your needs. Located 15 minutes from a major metropolitan area and 30 minutes from the joys of Door County. Interested physicians please contact: J.C. Majeski, Clinic Mgr, Luxemburg Medical Clinic, PO Box C, Luxemburg, WI 54217; 414-845-2351. p7-9/89

Unsecured signature loans for physicians, $5,000 to $60,000. Use for any purpose including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments. U_ to six years to repay. No prepayment penalties. Call 1-800-331-4952, Medi-Versal, Department 356. 5tfn/89

BC/BE Internists and family practitioners

A balanced lifestyle, competitive income and freedom to practice quality medicine. Opportunities to join a unique primary care practice in the Chicago/St. Louis areas. Excellent financial package includes income guarantee, bonus incentive and potential for profit sharing. No billing or HMO headaches.

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Lori Jones
MedFirst Medical Management, Inc.
5515 N. Cumberland Ave
Suite 808
Chicago, IL 60656
or call **collect:**
312-774-3443

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Physicians Exchange

continued

Practice for sale. Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, WI 53122. 8tfn/89

Medical Meetings—Continuing Medical Education

September 8–10, 1989: Wisconsin Society of Anesthesiologists, Lake Lawn Lodge, Delavan. g6-8/89

September 11–13, 1989 (Maryland): "Treatment of destructive behaviors in persons with developmental disabilities," at Masur Auditorium, Bethesda. Sponsored by the National Institute of Child Health and Human Development of NIH, the National Institute of Mental Health of the Alcohol and Drug Abuse and Mental Health Administration, the Bureau of Maternal and Child Health of the Health Resources and Services Administration, and by the NIH Office of Medical Applications of Research. This open forum will focus on the various treatments and approaches used to modify or eliminate destructive behaviors in persons with developmental disabilities. Info: Ms Barbara McChesney, Prospect Associates, 1801 Rockville Pike, #500, Rockville, MD 20852; ph 301-468-6555. g7-8/89

September 14–16, 1989: Wisconsin Society of Internal Medicine, Embassy Suites, Green Bay. g6-8/89

September 15–16, 1989: Wisconsin Surgical Society, The American Club, Kohler. g8/89

October 13–15, 1989: Wisconsin Radiological Society Annual Meeting, Concourse Hotel, Madison. g2tfn/89

November 26–December 1, 1989 (Illinois): 75th Scientific Assembly and Annual Meeting of the Radiological Society of North America, at McCormick Place in Chicago. 7-10/89

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

OTHER MEETINGS in the United States are published in the first issue of each month of the *Journal of the American Medical Association.*

Orthopedic Conference:
New Perspectives in Pediatric Orthopedics, An Update

October 5–7, 1989

Landmark Resort, Egg Harbor, Wisconsin

Speakers:
- Alan L. Breed, MD, Madison, WI
- Alvin H. Crawford, MD, Cincinnati, OH
- Paul Esposito, MD, Omaha, NE
- John J. Hugus, MD, Marshfield, WI
- Walter W. Huurman, MD, Omaha, NE
- F. Stig Jacobsen, MD, Marshfield, WI
- David C. Mann, MD, Madison, WI
- H. A. Peterson, MD, Rochester, MN
- George W. Simons, MD, Milwaukee, WI
- John G. Thometz, MD, Milwaukee, WI
- Virginia Garnett-Wintersteen, MD, La Crosse, WI

Further information: Marshfield Clinic, Office of Medical Education, 1000 North Oak Ave, Marshfield, WI 54449; ph 715-387-5207. 5-8/89

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St Luke's Hospital 3
StrategiCare 15
Wisconsin Society of Internal Medicine 23

State Medical Society of Wisconsin

Dates and locations of ANNUAL MEETINGS 1989–1993

All meetings will be held in Milwaukee at the Milwaukee Exposition and Convention Center and Arena (MECCA) and the new Hyatt Regency as the headquarters hotel, unless otherwise indicated.

1990—April 26–28: Green Bay Convention Center, Embassy Suites
1991—April 18–20: Milwaukee Wyndham Hotel
1992—April 23–25
1993—April 15–17: La Crosse Convention Center, Radisson
1994—April 14–16: Milwaukee

Meetings days will be Thursday and Friday; the first session of the House of Delegates will convene on Thursday, the second and third on Friday. Scientific programming will be on Friday and Saturday.

Further information: Commission on Continuing Medical Education, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701. Local Telephone: 257-6781; toll-free in Wisconsin: 1-800-362-9080.

VASOTEC®

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions*.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest, pulmonary embolism and infarction; rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Vasculitis, muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects*.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions*.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486.

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September 1989 Vol. 88 No. 9

Contents

Opinions

4 *President's page*
Our challenge is great
by William L. Treacy, MD, Milwaukee

Scientific

7 Breast cancer detection awareness project in Wisconsin: 1987–1988
by Marcia J.S. Richards, MD, Milwaukee, and Stanley L. Inhorn, MD, Madison

10 HIV among pregnant women: north central Wisconsin
by Paul R. Meier, MD, and Mary C. Baldauf, MD, Marshfield

12 Chlamydia in pregnant women: southeastern Wisconsin
by Dennis J. Baumgardner, MD, Avis Christopherson, LPN, Milwaukee, and Sue Momont, Madison

16 *Resident writing contest winner*
Ethylene glycol poisoning
by Sheila L. Momont, MD, and Philip J. Dahlberg, MD, La Crosse

21 Graduate nursing students writing contest

22 Instructions to authors

Socioeconomics

27 A peer review review
by Sally Wencel, JD, SMS staff attorney

35 *Loss prevention*
The case of nurse Rival and Dr Cutter
by Richard G. Roberts, JD, MD, Madison, and Sally Wencel, JD, SMS staff attorney

38 *Public health*
Mammography guidelines and practices in Wisconsin
by Patrick L. Remington, MD, and Paula Lantz, MA, Madison

44 HMO financial reports

Organizational

47 SMS offices open for nominations

47 Physician briefs

49 Membership update

51 Medical student and resident writing contest

52 Obituaries

Our cover: Courtesy of the American Cancer Society, Wisconsin Chapter; from the professional-education brochure *One picture saves a thousand lives*. This brochure discusses the importance of the mammogram and is available from Mary K. Nowakowski, director of professional education, American Cancer Society, Wisconsin Chapter, P.O. Box 8370, Madison, WI 53708.

Wisconsin Medical Journal

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State Medical Society of Wisconsin

Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

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Alien HMOs are establishing satellite offices in communities farther and farther away from their central facilities, competing for patients. Often, doctors sign up with a whole fleet of alien HMOs, in an attempt to maximize their patient bases. And that may be an effective short-term strategy. But too many HMOs competing for the same turf may result in failure for many. The big questions are, which will survive—and why should you care?

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President's page

Our challenge is great

HAVE YOU EVER had the feeling that you were directly in the path of a huge steamroller moving at a high rate of speed? Recent events, particularly at the federal level, seem consistent with that imagery.

- Congress decided to reduce the Medicare budget by $2.3 billion before knowing anything about what this would involve or how it would affect medicare recipients.
- Business considers health care costs out of control; and a few major business organizations have recently voiced support for some sort of national health service.
- Recent public opinion polls show that 89% of Americans feel our health care system is in need of major overhaul. Conversely, in Canada, 56% say they feel their system is working quite well. The lack of out-of-pocket expenses for consumers makes the health care system very popular. The other side of the coin, of course, is that access to necessary technology is in extremely short supply up north, long waiting periods are common, and hospitals close many beds the last month or so of the year because they have used up their operating budget. The system rations health care access.
- Recent votes in the Ways and Means Committee of the House indicate support for expenditure targets or caps on Medicare spending. These targets or caps set by the federal government would fix what would be spent across the country on Medicare Part B, and if this cap is exceeded, all physicians could be penalized by a reduction in payments the following year.

The pending reforms could have, of course, a dramatic impact on the medical profession and the quality of care we can provide to our patients. The future of the medical profession will be determined as much by political and legislative decisions as scientific advances and concerns. Our ability to influence these decisions depends on you.

Our State Medical Society and the AMA will continue and expand their efforts to inform the public of the benefits of the American system of health care, and of the many problems with other systems such as the Canadian model. In fact Jim Sammons, executive vice president of the AMA, will speak on many of these same issues, including Report AAA, at the SMS Medical Issues Conference, Oct 7, in Brookfield. It is up to all of us, however, to educate our patients and our legislators.

William L. Treacy, MD

Our success depends on your talking openly with your patients about the quality of the services we now deliver and the threat that expenditure targets, or other methods of rationing care, pose to continued access to that high quality care. I hope that all of you will become active in this effort. Our challenge is great. It is one we can overcome if we work together as constructive advocates for the interests of our patients and the future of the medical profession.

Breast cancer project

In October, the American Cancer Society, Wisconsin Division, will sponsor its third Breast Cancer Detection Awareness Project. For details, see the *Notice for Wisconsin Physicians* on page 6 of this issue of the *WMJ*, or call Claire Culbertson, BCDA coordinator, at 608-249-0487 or the Cancer Society at 1-800-ACS-2345. Also see related articles by Marcia J. S. Richards, MD, and Patrick L. Remington, MD, in this issue.

How Do You Tell Someone On Medicare She's An "Expenditure Target"?

Right now in Washington, a Congressional committee and the Bush Administration are toying with a new idea.

It's a system of explicit "expenditure targets" for the Medicare program.

The aim of this idea is to cut expenses. The result is that it will cut care.

What it amounts to is nothing less than an elaborate dis-incentive for treatment.

Instead of assuring access to vital health care services, this plan will accomplish the exact opposite. It will lead to the rationing of care.

The system calls for a national yearly target for spending on vital health care services. And after the target amounts are reached, the services would have to be reduced. This would be a disaster for older people.

Originally, Medicare was a golden promise that was made to all Americans.

We ask the Congress and the Bush Administration to keep the faith of that promise.

American Medical Association

Notice for Wisconsin Physicians:

The American Cancer Society 1989 Breast Cancer Detection Awareness Project

In October 1989, the American Cancer Society, Wisconsin Division, will sponsor its third Breast Cancer Detection Awareness (BCDA) Project.

American Cancer Society Guidelines for Early Detection of Breast Cancer:

1. Breast Self-Exam
   age 20 or over, every month
2. Breast Physical Exam
   age 20-40: every 3 yrs.
   age 40: every year
3. Mammography
   age 35-39: baseline
   age 40-49: every 1-2 yrs
   age 50 or over: every yr

In 1987, 10,200 Wisconsin women were screened with 75 cancers found. In 1988, 8,802 were screened with 52 cancers found. Each year approximately 100 facilities in Wisconsin participated in the project.

Physicians may refer their patients to call, or patients may self-refer to the project. This year the American Cancer Society BCDA Hotline (1-800-ACS-2345) will be open from October 2-20 for women to call to determine eligibility and obtain scheduling information. Requirements: (1) age 35 or over (2) no prior breast cancer (3) no mammogram in the past year (4) not pregnant (5) not breast feeding.

Reports of individual patient findings will be forwarded to both participants and physicians by the facility performing the screening.

For further information, please contact Claire Culbertson, BCDA Coordinator, (608) 249-0487; or The American Cancer Society, Wisconsin Division, toll free number 1-(800) ACS-2345.

AMERICAN CANCER SOCIETY®
Wisconsin Division

Breast cancer detection awareness project in Wisconsin: 1987–1988

Marcia J. S. Richards, MD, Milwaukee, and Stanley L. Inhorn, MD, Madison

In May 1987 and 1988, the American Cancer Society (ACS) sponsored Breast Cancer Detection Awareness (BCDA) programs throughout Wisconsin. These programs were made possible by the cooperative efforts of many ACS volunteers, hospitals, clinics, and physicians. The Wisconsin Radiological Society and the Division of Health were also involved in the planning efforts. In 1987, a total of 10,207 women were screened at 100 facilities, and 75 carcinomas were detected. In 1988, of 8,802 women screened at 102 facilities, 52 carcinomas were detected.
Wis Med J 1989;88(9):7–9.

THE GOAL OF THE American Cancer Society (ACS) for Professional Education to the year 2000 is to reach and educate all primary care physicians about cancer prevention and early detection. The improved use of screening for breast cancer, which accounts for one third of all malignancies in Wisconsin women, is essential to achieving this goal.

Convincing evidence is available from several studies that early detection techniques—especially mammography—are effective in identifying early stage disease and reducing the death rate from breast cancer.[1-5]

Data from several studies led to the development of the ACS Guidelines for breast cancer early detection in asymptomatic women. These are:

- Breast self-examination should be performed monthly, beginning at age 20.
- Physical examination of the breasts should be performed every three years on women aged 20 to 40 and annually on women 40 and over.
- A baseline mammogram should be done between the ages of 35 and 39, then every one to two years for ages 40 to 49, and annually for women 50 and over.

The early detection of breast cancer saves lives and offers women a choice of equally effective treatments—mastectomy or limited surgery combined with radiation therapy (breast conservation). If women and their physicians understand that early detection does not automatically result in the loss of a breast for effective treatment, more women can be expected to practice the early detection guidelines. Furthermore, if greater numbers of women practice and request early detection procedures, health-care professionals will be more likely to encourage their other patients to participate—resulting not only in breast preservation, but more importantly in saved lives.

The 1985 Survey of Physicians' Attitudes and Practices in Early Cancer Detection,[6] found that only 49% of primary care physicians ever order screening mammography on asymptomatic women, with only 11% following the ACS guidelines.[6] National data suggest that only 15% to 20% of women over age 50 have ever had a mammogram, much less on a regular basis. Data from the 1987 Wisconsin Statewide Survey for Behavioral Risk Factor Surveillance,[7] conducted by the Centers for Disease Control, indicate that 36% of Wisconsin respondents had previously had a mammogram, 55% of these within the past year, which is somewhat higher than the national figure.

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Program design

In 1987 and 1988 the American Cancer Society implemented the Breast Cancer Detection Awareness (BCDA) Project. It was carried out statewide during May of each year in cooperation with the Wisconsin Radiological Society, the Division of Health, and hospitals and mammography facilities throughout Wisconsin.

The BCDA Task Force of the ACS designed the program format, planning timetable, and project manual to facilitate participation by as many facilities as possible throughout Wisconsin. The task force also coordinated and promoted the project, provided breast self-examination training, distributed educational materials, and set up a toll-free hotline. Most components of the ACS in Wisconsin were involved in the project, including the public education, professional education, public information, crusade, service, and rehabilitation committees as well as most local units.

Participating facilities included hospitals, clinics, free-standing breast centers and mobile units and represented most areas of the state. They provided self-referral, two-view mammography using either film-screen or xerox techniques, breast physical examination, and instruction in breast self-examination, all for $50 or less. The fee included both technical and professional charges. The other responsibilities of these facilities included: scheduling appointments, taking histories and having consent forms signed, developing a list of referral physicians who would conduct follow-ups on women who had no primary physician, performing record keeping and providing that data to the ACS, and providing a local coordinator for the project. The ACS furnished audiovisual and other educational materials and breast examination models to these facilities.

An innovative feature of Wisconsin's BCDA project was its emphasis on quality control, which was overseen by a subcommittee with representatives from the Wisconsin Radiological Society and the Division of Health's Radiation Protection Section and other medical physicists.

Table 1.—Results of Wisconsin BCDA screenings.

	1987	1988
Facilities participating	100	102
Women screened	10,207	8,802
No evidence of cancer	8,695	7,772
Abnormal findings	1,286	1,030
Biopsy performed	316	260
Other recommendations	970	770
Biopsy Results		
Non-malignant	241	173
Carcinoma	75	52
Biopsy rate	1/33	1/34
Malignant/benign biopsy rate	1/4.3	1/5.0
Cancers/women screened	1/138	1/170

Participating facilities were required to meet quality assurance standards of image quality and to verify that the radiation dose was one rad or less at mid-breast for a two-view study. All facilities passed the radiation dose guidelines for both years. Image quality standards were initially not met by four facilities in 1987 and six facilities in 1988, but were corrected through assistance from the committee in all but one facility, which then withdrew from the project. This unique program will be described in a separate article.

Women were eligible to participate if they were 35 years of age or older, had no symptoms of cancer, were not pregnant or breast feeding, had not had a mammogram within the past year, and not been treated for breast cancer with breast conservation.

The rationale for excluding symptomatic or previously treated women was that a screening mammogram is appropriate only for asymptomatic women without known breast pathology and does not meet the need for additional x-ray views or magnification films. In addition, the cognitive effort required of the radiologist is increased for such diagnostic mammography. The difference between screening and diagnostic mammography is usually reflected in different professional and technical fees and time allocated, and is not well appreciated by either the medical professional or the public.

The ACS promoted the screening through multiple efforts aimed at educating the public and physicians and other health care professionals about the lifesaving potential of early breast cancer detection. The public was reached through statewide publicity on television and radio, and with over 500 items in the print media. A highly publicized toll-free hotline, staffed by ACS volunteers, was made available just prior to and during the month of May to answer questions and to facilitate the referral of women to participating facilities. Approximately 75,000 additional women were reached with information on breast health in 1987 and 175,000 in 1988, not including those reached by the previously discussed media coverage. Educational materials were sent to all primary care physicians in the state on screening for breast cancer, and professional education was enhanced through communica-

tion with participating radiology departments and local cancer committees.

The cost for the project was $44,210 in 1987 and $27,395 in 1988, with all funds provided by the ACS. Additional costs incurred through participation in the project by facilities or volunteers are not included in these figures.

Results

Results from the project for both years are shown in Table 1. Other recommendations not listed in the Table included ultrasound, additional x-ray views, and specified follow-up, excluding biopsy.

These data are consistent with previously reported rates for screening studies undertaken as research or demonstration projects, and thus support the reliability of data obtained through community screening.

It should be remembered that complete data were not obtained in either year of the study; due to the voluntary nature of this project, some facilities did not provide the needed information. In a few cases this was due to noncompliance with the project, but in most situations was related to the self-referral aspect of the project.

It was extremely difficult to obtain biopsy results from women who went to other facilities and physicians for follow-up studies. Furthermore, each facility was free to designate the number of patients it would screen for the project; this varied significantly between institutions.

During both years, women who called the toll-free hotline were surveyed about their experiences with breast cancer screening. The results of the questionnaire are shown in Table 2. The major reasons women gave for never having had a mammogram were in order of frequency: 1) never advised by their physician to have one; 2) the high cost not covered by insurance; 3) lack of knowledge of benefits of mammography; and 4) fear of radiation.

Table 2.—Results of hotline questionaires.

	1987	1988
Number responding	6774	5410
Never taught BSE	1529 (23%)	972 (18%)
Never had a mammogram	3981 (59%)	2243 (41%)
Doctor never advised a mammogram	3847 (57%)	1202 (22%)

Wisconsin Radiological Society Survey

After the two-year project was completed, the Wisconsin Radiological Society surveyed its members in February 1989 to determine current practice patterns regarding breast cancer screening. Sixty institutions with a total of 89 units reported that they provide mammography, 86.5% by film screen technique and 13.5% by xerography; 51% of the units were less than three years old.

Screening mammography was done by 85% of the facilities, with 51% accepting patients who are self-referred. Physical examination was performed in 52%, most commonly by a radiologic technologist. Charges were less than $70 for screening in 71% of the institutions. Ninety percent of the respondents indicated that they had a capacity to perform more examinations. A five-fold increase in the number of mammograms performed was reported between 1983 and 1987, with the increase beginning two years before the BCDA project. The rate of increase, however, accelerated after the first project. In addition, many facilities reported that, as a result of positive experiences with this program, they began to accept self-referrals, lowered the cost of screening, taught breast self-examination, and performed a breast physical examination.

Benefits of BCDA for Wisconsin

This project demonstrates that many different organizations and thousands of individuals—including health care professionals, hospital and clinic administrators, and ACS volunteers and staff—can cooperate in promoting life-saving behavior changes in patients and care givers alike. It also confirms the reliability of data collected in a community screening project regarding cancer detection and biopsy rates and the percent of malignancies.

The major impact of the BCDA project has been to inform and educate the public and the medical profession in Wisconsin about the usefulness of the ACS early detection guidelines for breast cancer. Obviously, much more remains to be done to increase the numbers of women and physicians who follow the guidelines.

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HIV among pregnant women: north central Wisconsin

Paul R. Meier, MD, and Mary C. Baldauf, MD, Marshfield

The incidence of infection by the human immunodeficiency virus (HIV) among pregnant women in north central Wisconsin is unknown. We devised and used an anonymous screening protocol to determine both the incidence of HIV infection and the rate of infection spread in this population. Our data demonstrate an extremely low incidence of HIV infection. Further, over the time periods studied, no clear evidence of an increase in the incidence of this severe infection could be demonstrated.
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THE EXACT PREVALENCE of human immunodeficiency virus (HIV) infection in the general population of the United States is unknown. Perhaps of greater importance, no accurate information exists to estimate the rate at which HIV infection is spreading among the population groups who have no obvious high risk factors. Extrapolations based on data obtained by screening voluntary blood donors or military recruits, may not accurately reflect the population at large because of a selection bias introduced into the data by announced screening of these specific populations. Anonymous screening surveys avoid this potential selection bias and may ethically be used to determine the incidence of HIV infection in a given patient population. Performing serial anonymous surveys can provide the data needed to establish the rate of spread of HIV infection in the observed population.

To determine the prevalence of HIV infection and consequent risk of perinatal exposure to the virus in north central Wisconsin, we screened anonymously 2,000 pregnant woman for serologic evidence of HIV infection. Screening was accomplished in two different time periods. Our data suggest a very low incidence of HIV infection in this population. Further, because of the extremely low incidence of HIV infection, we are unable to demonstrate a significant rate of spread of this infection in this particular patient population.

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Methods

With the approval of the Institutional Review Board of the Marshfield Clinic-Research Foundation, we studied the incidence of seropositivity to HIV among childbearing woman in north central Wisconsin. Using an anonymous protocol, we surveyed two time periods in an effort to detect any change in the incidence of seropositivity to HIV in this particular population. The first 1,000 samples were collected from June through September 1986. The second 1,000 samples were obtained between April and July 1988.

Serum samples were obtained from routine prenatal blood specimens submitted for blood typing and antibody screening. After the prescribed analyses were performed, each sample was stripped of patient identification and assigned a random number. Samples were batched and stored at −30 °C centigrade for later analysis. Only blood specimens from the initial prenatal screens were used for sample acquisition, thereby diminishing the possibility of patient duplication. On the day of analysis, samples were thawed and using a commercially available ELISA kit (Abbott Laboratories) with the manufacturer's control, the sera were analyzed for antibody to HIV. Any specimen with a reading at or above the recommended cutoff was retested in duplicate. Any specimen for which one or both repeat tests were positive, was submitted for Western blot analysis to the American Red Cross Blood Bank in St Paul, Minn. Confirmation of an HIV infection required the Western blot analysis to show a positive band at both gp24 and gp41. Because of the nature of sample acquisition, no specific risk factors could be assessed. No serum confirmation of pregnancy was performed. The Figure shows the areas from which the samples were obtained in the north central Wisconsin area.

Fig—Distribution of samples. Each dot represents single site contributing one or more specimens used in study to determine prevalence of HIV among pregnant women.

Results

Two thousand samples were analyzed for seropositivity to HIV. The Table summarizes the data for the two time periods studied.

Between April and July of 1988, two patients had repeatedly positive ELISA screens for the HIV antibody. In one patient, the Western

blot analysis was classified as indeterminate. In the second patient, heavy background staining precluded assessment of the critical bands required for a definitive diagnosis of infection. If this patient is assumed to have been infected, the incidence of infection found in the entire study group is 1/2,000 or 0.05% (95% confidence limits, 1/100,000–2.8/1,000).

Table—Screening for HIV seropositivity in pregnant women in north central Wisconsin.

	6/86 thru 9/86 (%)	4/88 thru 7/88 (%)	Combined (%)
No. of samples	1,000	1,000	2,000
Initially +	13 (1.3)	9 (0.9)	22 (1.2)
Repeatedly +	3 (0.3)	2 (0.2)	5 (0.25)
Western blot +	0	0*	0

*One sample categorized as "indeterminate." One sample could not be evaluated because of a high level of background staining.

Discussion

Pregnant women represent a subgroup in the general population of special interest to the obstetrician-gynecologist. Not only is the woman a potential infectee, she is also a potential infector of her consort, her unborn child, and those who attend her during labor and delivery. Efforts to reduce or modify the risk of infection among pregnant women (or any low risk group) will be directed in part by the actual incidence of infection in that population and the rate at which uninfected persons are acquiring the infection. The prevalence of HIV infection among subgroups of the US population varies. Among intravenous drug users in New York City, the incidence of seropositivity has apparently reached a plateau at approximately 60% of tested persons.[1] Baker found that six of 203 critically ill or injured patients anonymously screened (3%) were seropositive for the HIV antibody.[2] Of the 56 women tested in his survey, one was positive for HIV antibody. Quinn found that 3% of women screened at an inner city clinic for sexually transmitted diseases showed evidence of HIV infection.[3]

Using neonatal blood specimens, Hoff evaluated births in Massachusetts between December 1986 and June 1987.[4] He found that one of every 476 infants born during that period was seropositive for the HIV antibody. Rates of infection varied from 8/1,000 in inner city hospitals to 0.9/1,000 in rural hospitals. During the spring of 1987, Donegan and coworkers collected 500 consecutive cord blood samples at Boston City Hospital and tested them in a blinded fashion for antibody to HIV.[5] Nine, or 1.8%, were positive by ELISA testing, and the infection was confirmed by standard Western blot technique. The HIV seropositivity of 1/57 babies in this study is comparable to the rate reported in New York City of 1/61 births.[6]

Finally, Sperling, et al evaluated 224 births occurring at Mount Sinai Medical Center between November 1987 and January 1988.[7] Six of 224 samples analyzed were positive for HIV infection by both ELISA and Western blot technique. Among the 34 teenagers tested, two (5.9%) carried evidence of HIV infection. While this survey was anonymous, certain demographic details were retrievable, and the authors noted that none of the infected women would have been identified through a voluntary self-acknowledged risk behavior assessment.

Our survey suggests a low incidence (0.05% or less) of HIV seropositivity among childbearing women in north central Wisconsin. These findings are comparable with the incidence of seropositivity found among voluntary blood donors at the American Red Cross Blood Service, Badger Region, in Madison (0.004% or less) (personal communication, A.J. Hibbard, April 1989). Given the extremely low rate of HIV seropositivity in either time period evaluated, little can be said regarding the rate of spread of HIV infection among this group of patients.

As of Feb 28, 1989, 425 cases of AIDS have been reported in Wisconsin; 60% of these patients have died of their disease. Of the patients reported to have AIDS, only 15, or 4%, are female.[9] These data, together with the very low incidence of seropositivity found in our study population, are gratifying and suggest that the risk of perinatal infection is very small in the region surveyed. While the risk is small, the consequences of acquiring an HIV infection demand continued observation of universal precautions in the care of this population.

We believe anonymous screening of targeted patient populations is both informative and necessary if the AIDS epidemic is to be understood and managed. We believe anonymous screening such as we describe is both ethical and a more accurate way of obtaining necessary information than either voluntary or mandatory screening programs. Given the variable incidence of infection among different segments of the US population, we believe anonymous screening programs should be established in both urban and rural centers to monitor the spread of the HIV infection in the general population.

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Chlamydia in pregnant women: southeastern Wisconsin

Dennis J. Baumgardner, MD, Avis Christopherson, LPN, Milwaukee, and Sue Momont, Madison

Three hundred forty-two pregnant women were screened for the presence of *Chlamydia trachomatis* in the endocervix using a direct fluorescent antibody test (MicroTrak, Syva Co.). The prevalence of *C trachomatis* infection was 11.7% in our urban, non-inner-city, family practice center. Single marital status was significantly associated with *C trachomatis* infection, but obstetrical factors were similar in patients with and without positive chlamydial smears. The use of non-culture techniques to screen community populations of pregnant women for *C trachomatis* is discussed. *Wis Med J* 1989;88(9):12–15.

CHLAMYDIA TRACHOMATIS, the most prevalent sexually-transmitted disease (STD) in the United States, accounts for more than 4 million infections each year[1]. The initial chlamydial infection is often asymptomatic or subclinical. Serious sequelae in woman include pelvic inflammatory disease, regional peritonitis such as perihepatitis, ectopic pregnancy, and infertility. Maternal infections have been implicated in premature rupture of the membranes, preterm labor, and fetal death.[2] In addition, more than 150,000 neonatal and infant *C trachomatis* infections occur each year. Approximately 60% of infants born to infected women show serologic evidence of chlamydial infection. Inclusion conjunctivitis develops in 20% to 30% of exposed babies, while chlamydial pneumonia occurs in 16%.[3] Risk factors for *C trachomatis* in females include young age, single status, non-white race, low socioeconomic status, multiple sexual partners, and a personal or partner's history of an STD or mucopurulent cervicitis.[4]

C trachomatis cervical infection prevalence rates in pregnancy have varied between 2% and 37%, depending on the population studied.[4] Recently, the Wisconsin Division of Health instituted routine *Chlamydia* screening through the Family Planning Program[5] where *C trachomatis* prevalence rates, nationally, vary from 6% to 23%. It has also been suggested that all pregnant women in Wisconsin be screened for endocervical chlamydial infections using non-culture techniques such as direct fluorescent antibody (DFA) or enzyme immunoassay (EIA) testing[6].

We report our experience using a DFA (MicroTrak) test to ascertain the prevalence of *C trachomatis* endocervical infections in pregnant women at our urban, non-inner-city, family practice clinic.

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Methods

From August 1, 1986, to April 30, 1988, 380 pregnant women received their initial prenatal pelvic examination at our family practice residency clinic. By protocol, demographic data, obstetrical history, cervical Papanicolaou smears, and laboratory specimens were obtained by faculty and resident physicians. Excluded from our study were patients in which the *Chlamydia* smear was inadvertently omitted or recently performed at another institution and those known to have been on antibiotics within two weeks of examination. This resulted in the exclusion of 38 patients, leaving a study population of 342 gravid women.

Endocervical specimens were obtained after visualization of the endocervix by speculum examination. When necessary, the exocervix was cleansed of excess exudate or mucus with a large cotton swab.

For isolation of *Neisseria gonorrhoea,* rayon-tipped swab specimens from the endocervix were placed in modified Stuart's transport medium (Culturette, Marion Scientific) and incubated at 37 °C on chocolate agar and modified Thayer-Martin medium in a CO_2 rich atmosphere.

Testing for *C trachomatis* was performed using direct fluorescent antibody staining (MicroTrak; Syva Co., Palo Alto, Calif). Endocervical samples were obtained with cotton-tipped swabs and rolled over Syva collection kit slide wells. Slides were air dried and then fixed with either acetone or methanol and transported at ambient temperature to the reference laboratory. Staining and interpretation of the MicroTrak smears were performed according to the manufacturer's instructions.

During the study period, the protocol at our institution for convenience used cotton-tipped swabs for the collection of endocervical MicroTrak specimens. Dacron—rather than cotton swabs—are recommended by the manufacturer because the latter may result in recovery of relatively fewer elementary bodies per specimen. This may lead to minor diminutions in sensitivity, but this difference may be less than that observed between given health care workers performing the endocervical sampling (data on file, Syva Co). Reductions in specificity due to increased uptake of fluorescence by cotton fibers do not usually occur with experienced microscopists. None of our 342 specimens was found unacceptable by our regional reference laboratory, which processes an average of 3,000 MicroTrak specimens each year.

Results were subjected to statistical analysis using Student's t-test for comparison of mean values and a chi-square test with Yates's correction for dichotomous variables; $P < 0.05$ was considered statistically significant.

Table 1.—Study population (n = 342).

Average age, years	23.3 ± 5.2
Race or national origin, number (%)	
white	262 (76.6%)
black	9 (2.6%)
Hispanic	27 (7.9%)
Southeast Asian	36 (10.5%)
Middle Eastern	8 (2.3%)
Marital status, % married	46.2%
Receiving public assistance, %	58.2%

Table 2.—Characteristics of patients with and without positive cervical Chalmydia smears.

Characteristic	Chalmydia positive (n = 40)	Chlamydia negative (n = 302)
Demographic		
Maternal age, years	23.5 ± 4.7	22.3 ± 5.3
Race, % white	87.5	75.2
Marital status, % married	22.5	49.3*
Receiving public assistance, %	60.0	57.9
Reproductive/gynecologic history, %		
Nulliparous	40.0	35.1
Abnormal Pap smear	7.5	4.0
Previous preterm gestation	7.5	6.0
Previous spontaneous abortion	15.0	16.2
Previous elective abortion	15.0	16.2

*$P < 0.01$, χ^2 test with Yates's correction

Results

Demographic data for our study population of 342 pregnant women, who averaged 14.7 gestational weeks at presentation, are shown in Table 1. This population is drawn from an urban, non-inner-city group of largely lower or lower middle-income families. Up to half of the 42% of patients not receiving public assistance were receiving some form of financial aid. The 38 patients who were excluded did not differ significantly from the study population with regard to average age, race, marital status, public

assistance status or the percent who were nulliparous.

The endocervical DFA test for *C trachomatis* was positive in 40/342 patients (11.7%).

The characteristics of patients with and without positive cervical *Chlamydia* screens are listed in Table 2. Patients with positive cultures were significantly less likely to be married than those with negative DFA tests. The groups did not differ with respect to age, race, or the proportion receiving public assistance. There was a trend toward *C trachomatis* infection being less common in Asian patients (including those from Southeast Asia and the Middle East) compared to non-Asian patients ($P = 0.07$). This was likely related to the significantly higher proportion of married patients in the Asian women (95.3%) than in the non-Asian group (38.8%). Omitting patients without certain demographic risk factors for *Chlamydia*, our study included 87 white, married women, 20 years of age or older. *C trachomatis* was demonstrated in seven, or 8.0%, of this subset of women. Patients with and without *C trachomatis* did not differ with regard to reproductive history or the presence of abnormal Papanicolaou smears (Table 2). One of 342 patients was positive for *N gonorrhoea* (0.3%), and this patient also harbored *C trachomatis*.

Discussion

The screening of asymptomatic pregnant patients for *C trachomatis* may prevent subsequent tubal damage, infertility and ectopic pregnancy,[7] and the treatment of maternal *Chlamydia* infections has been recommended to reduce neonatal morbidity.[4,8] In addition, early maternal treatment may prevent pregnancy complications. This controversial subject has been recently reviewed.[2] Large prospective investigations have associated maternal genital tract *C trachomatis* infections with preterm delivery, lowered birth weights,[9,10] and preterm, premature rupture of the membranes.[9] While some studies have not shown these associations, it appears that at least a subset of women with more acute chlamydial infection are at risk for premature rupture of membranes, the delivery of infants with low birth weights,[11] and spontaneous abortions.[2] In our study, prior obstetrical history was not predictive of *C trachomatis* infection prevalence.

Recently, non-culture diagnostic tests for *C trachomatis* have become available, and their utility has been recently reviewed.[12] Studies have shown that the DFA tests (Micro-Trak) and EIA (Chlamydiazyme, Abbott Laboratories, North Chicago, Ill) are generally equivalent in sensitivity and specificity.[13] Sensitivities for DFA tests average from 70% to 90%, compared to culture, and increase with the prevalence of the organism in the study population and with the proportion of subjects who are symptomatic.[12,14] Similarly, the positive predictive value (the proportion of positive tests being true infections), of the non-culture tests increases with the prevalence of infection.[6,12] The positive predictive value of the DFA test rises from about 80% at a prevalence of 10%, to 90% in a population with 20% *C trachomatis* infections.

The sensitivity of the DFA test also increases with the number of columnar epithelial cells,[14] and the specificity increases with the number of elementary bodies or inclusions on the sample.[15] The sensitivity also varies according to the sampling technique and materials and between research centers and laboratories.[16] Despite these shortcomings, non-culture methods are reasonable screening tools for *C trachomatis*, particularly in community populations where the prevalence exceeds 10%.[12]

Chlamydial cell cultures are also subject to error due to problems with storage, transportation and laboratory technique and may only approach 86% sensitivity in experienced research centers.[13] The sensitivities of DFA and cultures may be similar in community laboratories[17] (also R.B. Jones, personal communication, Nov 10, 1988). The sensitivities of both culture and non-culture techniques are improved with the use of a second sample, as is the positive predictive value of the non-culture tests.

If demographic and historical factors suggest a false positive DFA or EIA test, a repeat test can be performed.

The DFA test has been found acceptable for screening high-risk pregnant women, and in some cases, the sensitivities for non-culture tests may exceed that of culture tests.[13,18] This may be due to increased recovery of columnar epithelial cells due to cervical ectropion in pregnancy.

Some groups have recommended chlamydial screening for pregnant women with specific risk factors for *C trachomatis*.[4,12] Addiss et al have recommended screening all pregnant females.[6] While screening costs vary with the test and the locale, rapid tests appear to be cost-effective for screening routine gynecologic patients where the prevalence of infection is 7% or greater.[19] In pregnant women, prophylaxis potentially extends to both the patient and the newborn, and chlamydial screening may be cost-effective at a lower (6%) prevalence rate.[20]

In our study, the elimination of patients with non-financial demographic risk factors still resulted in an 8% *C trachomatis* prevalence rate in the subset of white, married women over the age of 19. Because historical risk factors are often more difficult to assess in this situation, it seems prudent also to routinely screen this group of pregnant patients.

Our data suggest a somewhat lower (although not quite statistically significant) risk of chlamydial infections in persons of Southeast Asian and Middle Eastern extraction. This suggests that certain non-white ethnic groups may be at a lower risk for chlamydial infections, presumably

because of decreased extra-marital sexual activity.

In summary, our study of 342 urban, non-inner-city pregnant patients in southeastern Wisconsin revealed a *C trachomatis* endocervical prevalence rate of 11.7%. The use of non-culture methods, in this case the DFA test, appears to be a reasonable diagnostic tool for screening this community population. It appears to be cost-effective to screen every pregnant woman in our patient population, even those without demographic risk factors for *C trachomatis* infection. In our population, which was largely white and multiparous with an average age of 23 years, single status was the only identifiable demographic or obstetrical risk factor for chlamydial infection.

The effective screening and treatment of *C trachomatis* infections in pregnant women should prevent most of the neonatal complications of chlamydial infection. Because of the controversy surrounding maternal complications, the proper time for the investigation and treatment of these infections during pregnancy is debated. The author's bias is to initially screen and treat all pregnant patients early in the prenatal course, with surveillance and re-treatment, if necessary, late in pregnancy[2].

Future innovations may further improve the accuracy and cost-effectiveness of prenatal *C trachomatis* screening.

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Resident writing contest winner

Ethylene glycol poisoning

Sheila L. Momont, MD, and Philip J. Dahlberg, MD, La Crosse

Seven men with ethylene glycol poisoning were treated at our institution during a ten-year period. Six patients survived. Ethylene glycol levels on admission did not directly correlate with the severity of metabolic abnormalities or subsequent complications. The timing of the patients' admissions altered the clinical picture and results of therapy. Patients who came to our facility later than 12 to 24 hours after ingestion had established renal failure and required prolonged hospitalization. We were able to prevent renal failure in the one patient started on dialysis less than 23 hours after ingestion. Our patients exhibited the metabolic, CNS, cardiopulmonary and renal manifestations of ethylene glycol poisoning. *Wis Med J* 1989;88(9):16–20.

ETHYLENE GLYCOL intoxication is a medical emergency that requires prompt recognition and aggressive treatment. Nationally, up to 60 deaths each year are attributed to accidental or suicidal ethylene glycol ingestion[1]. In this paper, the outcomes of seven patients treated during a ten-year period are described. Six of the seven patients survived. Two of the seven cases are described in detail to emphasize the difference between early and late admission after ingestion. The pathophysiology, clinical presentation, diagnosis, and a treatment protocol for ethylene glycol poisoning are reviewed.

Case presentations

Patient 1. A 57-year old man was found staggering outside his home. While en route to the hospital he admitted drinking antifreeze in a suicide attempt. At the local emergency room he was initially responsive but within minutes would only react to painful stimuli. Laboratory studies showed a high anion gap acidosis and many calcium oxalate crystals in the urine. He received gastric lavage, activated charcoal, intravenous (IV) bicarbonate, intramuscular (IM) thiamine, 100 mg, and pyridoxine, 50 mg. A 50% solution of ethanol was given via a nasogastric tube. He was transferred to our institution within four hours of his arrival at the emergency room. Examination revealed that he was cachectic, confused, and combative. His vital signs were as follows: temperature, 37 ° C; respiratory rate, 22 breaths per minute; blood pressure, 172/96 mmHg; and pulse 70 beats per minute. An endotracheal tube was in place. Pupils were equal and reactive. No nystagmus was present. He withdrew to noxious stimuli and his deep tendon reflexes were symmetrically hypoactive. Plantar reflexes were flexor. Admission laboratory findings are outlined in the Table (next page).

Subclavian hemodialysis and Swan Ganz catheters were immediately placed. A 10% ethanol infusion was instituted, and ethanol levels were maintained between 100 and 150 mg%. Serum ethylene glycol levels decreased from 303 mg% to 19 mg% after eight hours of hemodialysis. Pulmonary capillary wedge pressures were maintained with normal saline during dialysis. No renal failure developed. His encephalopathy resolved within 24 hours, although he remained suicidal. He was transferred to the psychiatric unit 48 hours after admission.

Patient 3. A 28-year-old Cuban refugee was found unresponsive outside an Army installation. He was intubated, and IV dextrose, insulin, and normal saline solution were given. He received two ampules of sodium bicarbonate during transfer to our hospital.

On arriving at the hospital he was comatose. His vital signs were as follows: temperature, 35 ° C; respiratory rate, 20 breaths per minute; blood pressure, 130/80mmHg; and pulse rate, 80 beats per minute. Physical examination revealed horizontal nystagmus, decreased pupillary reactivity to light, and minimal withdrawal to painful stimuli. Laboratory findings are shown in the Table.

The patient received 100 mg of thiamine, 50 mg of IM pyridoxine, and 100 cc/h of IV 5% ethanol. Hemodialysis was begun within five hours and initially was continued for 18 hours. His acidosis had resolved by this time and due to a fever spike, the dialysis catheter was removed and cultured. Anuria developed, prompting reinsertion of a dialysis catheter the following morning. His blood pressure became labile and he remained unresponsive for three days. He had one episode of myoclonic jerking. His hemodynamic and neurologic status improved after 72 hours, and he awakened without focal deficits. At this time he conceded to the hospital interpreter that he had ingested an unknown quantity of ethylene glycol two days prior to admission.

The patient remained oliguric and

This paper won first place in the 1989 *WMJ* medical resident writing contest. Dr Momont is a resident at the Gundersen Clinic in La Crosse and is with the Department of Internal Medicine. Reprint requests to: Sheila L. Momont, MD, Department of Internal Medicine, Gundersen Medical Foundation, 1836 South Ave, La Crosse, WI 54601. Copyright 1989 by the State Medical Society of Wisconsin.

required hemodialysis for 12 days. Serum creatinine peaked at 14.9 mg/dL. At the time of discharge, neurological tests showed normal values, and his creatinine was 1.9 mg/dL.

The table outlines selected chemical and laboratory findings in our seven patients. Common laboratory abnormalities include a high anion gap metabolic acidosis, hyperosmolarity, and an elevated osmolar gap. Other abnormalities included hyperkalemia in three, hypocalcemia in three and elevated serum creatinine in six.

Patient 1, who had the second highest ethylene glycol level on admission had the fewest complications and was the only survivor who did not develop renal failure. His prompt hospitalization and the institution of therapy resulted in a rapid recovery and avoidance of complications. A delay of 12 hours to admission, 18 hours to dialysis, and a large volume of ingestant caused patient 2 the most extensive complications. He exhibited the CNS, cardiac, pulmonary, and renal dysfunctions commonly described with ethylene glycol poisoning. He required chronic hemodialysis for four months. The four patients admitted later than two days after the ingestion (patients 3, 4, 5, and 6) had much lower ethylene glycol levels, probably due to metabolism of the compound. Their metabolic derangements were severe, and they all developed severe renal failure. None of the four, however, required long-term hemodialysis.

In contrast, patient 7 ingested an unknown agent at home and had no serum ethylene glycol detected on admission. Calcium oxalate crystals were seen in the urine. Methanol and alcohol levels were elevated in the

Selected clinical and laboratory features of six patients with ethylene glycol poisoning.

	Patient						
	1	2	3	4	5	6	7
Age, years	57	66	28	44	50	26	62
delay*	3–6	12	36–48	36–48	36–48	264	5–10
Number of dialyses	1	13	9	6	9	10	0
Hospital days	2	26	18	14	22	26	1**
Organ dysfunction							
CNS	+	+	+	+	+	+	+
pulm	–	+	–	–	–	–	–
cardiac	–	+	–	–	–	–	+
renal	+	+	+	+	+	+	–
Peak creatinine (mg/dL)	0.8	17.4	14.9	9.2	12.4	32.3	NA
Discharge creatinine (mg/dL)	0.8	17.4	1.9	2.8	5	5.8	NA
Admission laboratory values							
pH	7.31	6.76	6.99	6.8	7.27	7.37	6.88
pCO_2 (mmHg)	29.6	18.9	14.8	20.7	12.9	26.6	11.6
pO_2 (mmHg)	186	106.5	200	113	116	104	130
HCO_3 (meq/1)	14.4	2.6	3.3	3	5.7	15.4	2
potassium (mmol/L)	3.6	4	8	8.3	4.7	3.6	7
calcium (mg/dL)	8.6	9.8	7	7.8	9	7.9	8.7
creatinine (mg/dL)	0.5	2.8	4.5	2.6	3.1	28.6	1.7
osmolarity (mosm/kg H_2O)	326	402	325	336	308		347
Anion gap	20.2		31.7	30.3	29		34
Osmolar gap	26	82.4	36	23	11		65
ethylene glycol (mg%)	303	460	86	40	10	9	0

*hours from ingestion to presentation
**death

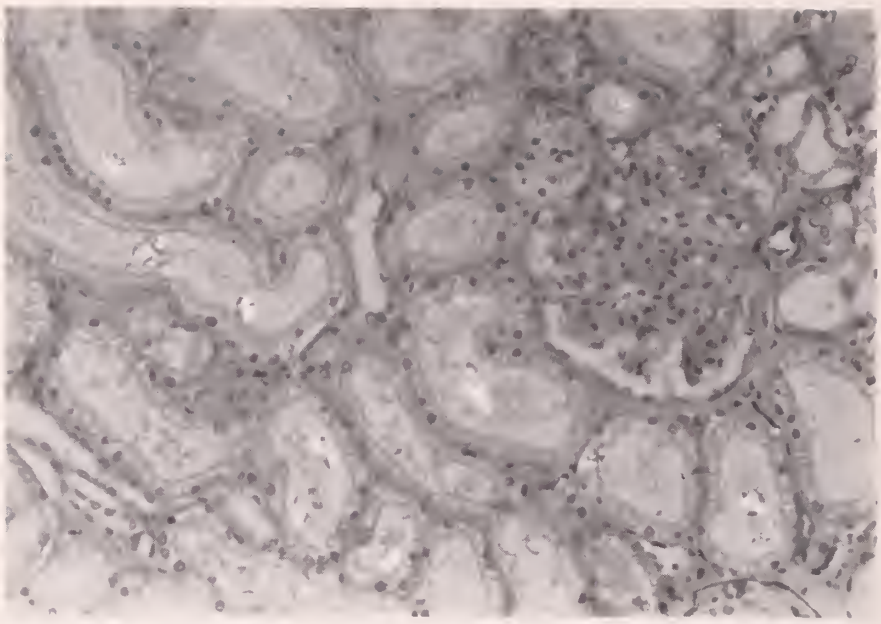

Fig 1.—Renal tubular lumina showing characteristic hydropic degeneration and oxalate crystals.

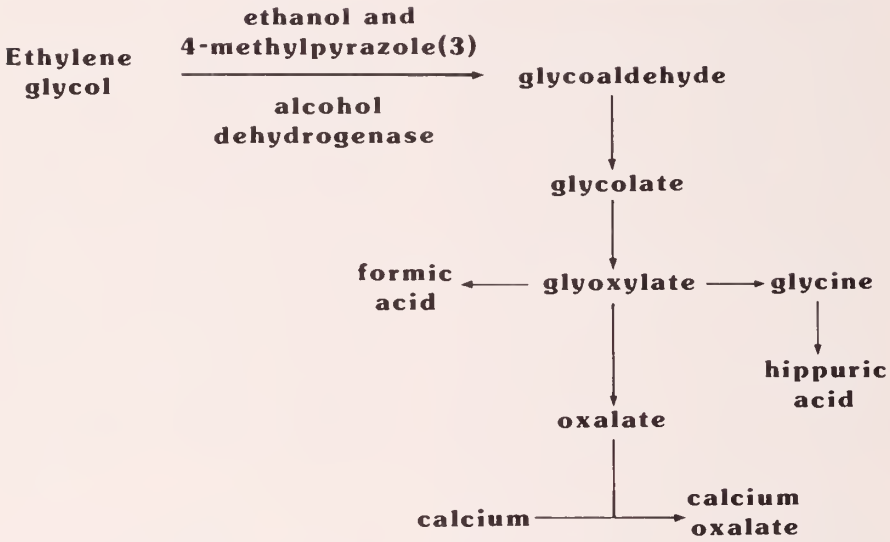

Fig 2.—Pathway of ethylene glycol metabolism.

blood. He suffered a cardiac arrest before dialysis could be instituted, and resuscitative efforts were unsuccessful. At autopsy, oxalate crystals were found in many of the renal tubular lumina (Fig 1), typical of ethylene glycol poisoning. We cannot explain the undetectable blood levels, but it seems clear that ethylene glycol ingestion contributed to his death.

Discussion

Ethylene glycol is a colorless, odorless, nontoxic compound found in radiator antifreeze and a variety of other commercial products.[1] Although it is non-toxic, its metabolites are responsible for the life threatening features associated with its ingestion. The lethal dose of ethylene glycol is approximately 100 mL for adults.[2]

The metabolism of ethylene glycol is illustrated in Fig 2. The compound is oxidized to glycolaldehyde by the hepatic enzyme, alcohol dehydrogenase. Glycolaldehyde is then oxidized to glycolate, which is slowly converted to glyoxylate. The conversion of glycolate to glyoxylate is considered the rate limiting step. Glyoxylate has a short half-life and there are several possible pathways for its metabolism.[2]

Glycolic acid is the major determinant of the metabolic acidosis. The role of the other acidic metabolites of ethylene glycol is probably negligible. Oxalate precipitates as calcium oxalate and is deposited in the kidneys, brain, myocardium, and pancreas. Oxalate is the metabolite responsible for the hypocalcemia and acute renal failure observed in ethylene glycol poisoning. Its role in neurologic and cardiac toxicity is less clear.[1,2]

Metabolic acidosis may be characterized by a normal or high anion gap. The anion gap is based on the fact that the sum of the cations in the serum must equal the sum of the anions. Since the serum potassium level is often elevated in ethylene glycol intoxication, it should be included in the anion gap calculation, (Na + K)—(Cl + HCO_3). The upper limit of normal for the gap is 16 mEq/L. The gap represents mainly serum anions not measured in electrolyte determinations. The accumulation of these organic acids can be seen in renal failure, ketoacidosis, lactic acidosis, and after ingestion of ethylene glycol, methanol, salicylates and paraldehyde.[2,4]

The osmolar gap is defined as the difference between the measured and calculated serum osmolarity, which is calculated by the following equation:

serum OSM =
2 (Na) + BUN (mg/dL)/3.0
+ glucose (mg/dL)/20

An osmolar gap develops when an osmotically active substance other than sodium, glucose, or urea is added to the plasma. An osmolar gap greater than 10 mosm/L is usually clinically significant. In addition to ethylene glycol ingestion, an increased gap can be seen with methanol, ethanol, acetone, and diethyl ether ingestions, parenteral infusion of hyperosmolar solutions (eg, mannitol), diabetic

ketoacidosis, chronic renal failure, and lactic acidosis.[2,4,5]

Methanol and ethylene glycol poisoning are two major diagnostic considerations in a patient with a high anion gap acidosis, increased osmolar gap, rapidly progressive acidosis, and CNS symptoms. Determining the ingestion history is crucial, and therapy should be initiated even if the offending agent cannot be promptly identified. If acute renal failure occurs, the diagnosis of methanol poisoning can be excluded. The other diagnostic possibilities include chronic renal failure, severe diabetic ketoacidosis, and lactic acidosis. In chronic renal failure, the osmotically active substance accumulating is unknown. In severe diabetic ketoacidosis, both acetone and hyperlipidemia can contribute to the osmolar gap. The hyperlipidemia artificially increases the gap by reducing the reported sodium concentration, which in turn increases the disparity between the measured and calculated osmolarity. Lactic acidosis is reported to be associated with an osmolar gap, but the evidence is not conclusive.[5]

Three stages of ethylene glycol intoxication are usually observed. CNS symptoms initially predominate, followed by cardiorespiratory and, ultimately, renal complications. These stages, however, are a continuum, and the patient may have any combination of organ dysfunction. The latent period for each stage, as well as its severity, is dependent on the amount of ethylene glycol ingested.

CNS toxicity typically begins 30 minutes to 12 hours after ingestion. Patients appear inebriated without the odor of alcohol on their breath. Large doses can cause coma, convulsions, and even death. Ophthalmoplegias, papilledema, and nystagmus are common. Generalized or focal seizures, depressed reflexes, tetany, and myoclonic jerks have all been observed. Additional early findings include fever, hypertension, tachycardia, nausea and vomiting.[1]

Initial laboratory evaluation reveals a high-anion-gap acidosis. Serum bicarbonate is frequently less than 10 mEq/L. The osmolar gap (calculated minus measured osmolality) is greater than 10 mosm/kg. Severe hypocalcemia and life-threatening hyperkalemia are frequent. The hypocalcemia is believed to be due to the chelation of calcium ion by oxalate, which forms relatively insoluble calcium oxalate crystals.[1] A moderate leukocytosis (10,000 to 40,000 cells/mm^3) with a neutrophil predominance may be found. Urinalysis typically shows a low specific gravity with proteinuria, microscopic hematuria, pyuria, and crystalluria. The crystalluria is commonly due to two forms of calcium oxalate crystals—the needle-shaped monohydrate form and the envelope-shaped dihydrate form.[4] Cerebrospinal fluid findings may be consistent with a chemical meningoencephalitis.[1]

Cardiopulmonary insufficiency

A. Laboratory—stat
   1. ABG
   2. electrolytes, BUN/creatinine, blood sugar, calcium
   3. toxin screen (include ethylene glycol, methanol, and ethanol)
   4. serum osmolality
   5. urinalysis (for calcium oxalate monohydrate or dihydrate crystals)
B. First step—decrease or prevent further intestinal absorption of the toxin
   1. If patient is alert and time from ingestion is less than one hour, emesis should be induced using Syrup of Ipecac and activated charcoal administered.[6]
   2. If patient is obtunded, the airway should be protected and gastric lavage performed.[6]
C. Second step—begin correction of the acidosis
   1. Sodium bicarbonate[2]
D. Third step—ethanol therapy
   1. Loading dose
      a. Bolus 0.6 g/kg of 20–50% ethanol orally or per NG.[7] Intravenous—5–10% solution of ethanol (60 ml absolute ethanol mixed with 500 ml isotonic glucose).[2] Intravenous method preferred in compromised patient.[2]
   2. Maintenance dose
      a. Begin immediately after loading dose
      b. 109 mg/kg/hr of 20% ethanol orally or 5–10% ethanol intravenously.[7]
      c. Make adjustment for dialysis and chronic alcoholism
         1. Increase to 237 mg/kg/hr during dialysis.[7]
   3. Monitor ethanol levels closely and aim for optimal blood ethanol level of 100–150 mg/dl. Continue ethanol therapy until ethylene glycol has been eliminated from the blood.[2]
   4. Observe for hypoglycemia with prolonged ethanol infusion.[8]
E. Fourth step
   1. Thiamine 100 mg IM or IV every 6 hours[9]
   2. Pyridoxine 50 mg IM or IV every 6 hours[9]
F. Fifth step—hemodialysis
   1. Institute as soon as diagnosis is established with a high efficiency dialysis membrane and bicarbonate bath.
   2. Continue initial hemodialysis until no ethylene glycol is detected in the serum and the acidosis is corrected..
   3. If patient is not oliguric, maintain urine output with crystalloid and furosemide.
   4. Maintenance hemodialysis in patients with acute renal failure.

Fig 3.—Treatment for ethylene glycol intoxication.

marks the second stage and begins 12 to 18 hours after ingestion. Tachycardia, tachypnea, mild hypertension, and cyanosis are also usually present. Pulmonary edema, congestive heart failure, cardiac arrhythmias, and bronchopneumonia have also been reported. Death from cardiopulmonary failure is reported less commonly now than in the earlier literature, probably due to earlier recognition and treatment.[1] Many of these cardiopulmonary events may be secondary to the acidemia, hypocalcemia, hyperkalemia and volume overload from acute renal failure.

Renal failure is the hallmark of the third stage of ethylene glycol intoxication. It usually occurs 48 hours or more after the poisoning. In alert patients, costovertebral angle tenderness is a common finding. A spectrum from a mild increase in BUN and creatinine levels to complete anuria may develop. Renal failure is secondary to oxalate deposition in renal tubules. Despite oliguria of up to 50 days' duration, the renal failure usually resolves.[1]

Therapy of ethylene glycol ingestion includes the following:

- bicarbonate for correction of the acidosis,
- ethanol (or 4-methylpyrazole) administration to competitively inhibit alcohol dehydrogenase and the conversion of ethylene glycol to its toxic metabolites, and
- hemodialysis to remove the glycolate, which is the main anion responsible for the metabolic acidosis and a precursor of the ultimately toxic oxalate.[6]

Thiamine and pyridoxine are also included in most treatment regimens. They serve as cofactors for the conversion of glyoxylate to less toxic metabolites. Their value is uncertain, but continued use is recommended.[5]

Fig 3 outlines our recommended approach to therapy. The use of 4-methylpyrazole in ethylene glycol intoxication is not included, but could become an important part of standard therapy.[3]

The importance of prompt recognition and management must be emphasized. The time from ingestion to admission plays a major role in the development of complications. The serum ethylene glycol level cannot reliably be used to predict the clinical course or the development of complications. Survival is possible, even in patients who are admitted days after the ingestion, if the metabolic abnormalities are quickly addressed and dialysis started.

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- Entries are limited to 10 pages, typewritten, double-spaced pages, with 1-inch margins.
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Continued on page 24

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Continued from page 16
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HMSS

A peer review review

Sally Wencel, JD, SMS staff attorney

This article is intended to give the reader background information on the current legal standards governing good faith peer review. Included in this information is a brief outline applying these legal principles to actual practice.

What is peer review?
The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) Hospital Accreditation Manual required Medical Staff characteristic MS.6.1 provides a broad definition of peer review when it states that the medical staff provides "effective mechanisms to monitor and evaluate the quality and appropriateness of patient care and the clinical performance of all individuals with delineated clinical privileges. Important problems in patient care are identified and resolved, and opportunities to improve care are addressed. . . . ." This definition can easily be applied to the purpose and function of peer review in most patient care settings.

Quality v quantity.
Utilization review, with its focus on the appropriate use of medical resources, is often characterized as different from quality of care review. The distinction between quality and appropriateness of care is, however, often a matter of semantics, since under or over use of medical services can result in poor medical care quality. For the purposes of this article, the reference is to quality of care review, with a focus on actions taken for what has been determined by the reviewers to be substandard or improper medical care, which necessarily includes utilization review.

List of characters.
Peer review has also taken on a more modern meaning of review, primarily appropriateness of care or utilization, conducted by outside reviewers. These outside reviewers are creatures of legislation, such as the professional review organizations which monitor Medicare Part A medical care, or private business contracts, such as reviewers contracted to review care provided in HMOs, PPOs, or other medical care delivery plans. Private insurers have turned to outside review for much the same purpose as has Medicare and provide what is termed "managed care."

Despite this emphasis on external review, peer review within an institution or organization has maintained and perhaps increased its importance on the many levels at which it takes place. Peer review is at the core of quality assurance in hospitals through medical staff credentialing and privileging, tissue committees, utilization, and quality review committees. These peer review mechanisms are required for hospital licensure under the Wisconsin Hospital Code and accreditation by JCAHO. In addition, clinics are developing and implementing quality assurance programs similar to those found in hospitals. Legal counsel often recommend that HMOs, PPOs, IPAs and other provider panels maintain their own credentialing, privileging, and quality assurance mechanisms for medical liability risk management reasons.

Finally, professional organizations, including medical and specialty societies are providing peer review in its various forms. For example, the SMS Commission on Mediation and Peer Review provides medical care quality and appropriateness review to small hospital medical staffs who cannot

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meet the definition of objective peer review. Specialty societies also offer peer review as the need for outside review increases.

The importance of these available outside review sources becomes more clear after reviewing recent legal definitions of good faith peer review.

Specific legal definitions and requirements.

Peer review has been subject to closer legal and legislative scrutiny over the past decade as claims that peer review was done for illegal or improper reasons became more frequent and costly. To date, two major pieces of legislation affecting Wisconsin physicians define good faith peer review, create protection for the peer reviewer, and define the proper release of peer review findings and conclusions. Those laws, the Federal Health Care Quality Improvement Act of 1986 and Wisconsin Statutes §146.37 and §146.38, are summarized below.

Federal Health Care Quality Improvement Act (FHCQIA). The FHCQIA states that no person who takes, or assists in taking a "professional review action" that meets certain standards shall be held liable in private damage actions under any federal or state law other than civil rights laws. "Professional review action" is defined to include any peer review action or recommendation based on the competence or professional conduct of a physician and which might affect the physician's clinical privileges or membership in a professional society. The act extends this immunity to a person who furnishes information to a professional review body regarding the competence or professional conduct of a physician unless the person knew that the information is false. The language limits review to that of physicians, therefore, credentialing of non-physician members of medical staffs, for example, would not by protected by this federal law.

FHCQIA also provides that defendants who substantially prevail in a suit for conduct protected by this law (good faith peer review) are entitled to costs and attorneys' fees if the plaintiff's claim was "frivolous, unreasonable, without foundation or in bad faith."

Finally, FHCQIA requires that the action be reported to a national clearing house, the "national data bank," as soon as the clearinghouse is established and operational. Under the proposed rules, access to this information will be limited. However, failure by the hospital to obtain information about a specific physician from the national data bank can be disclosed. In addition, the act's protection can

Continued on page 30

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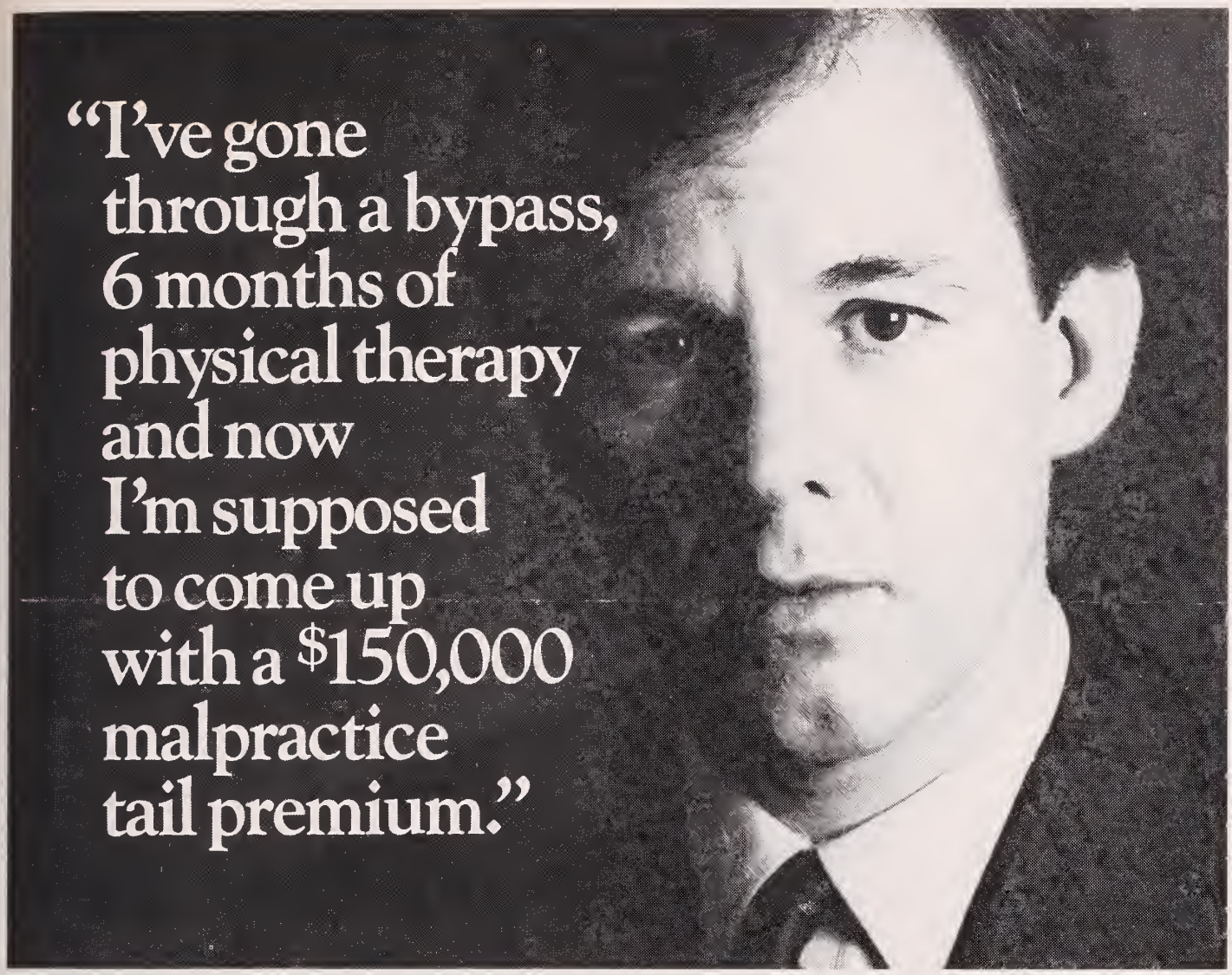

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Continued from page 28

be forfeited if a hospital or other health care entity fails to report a review action.

To receive protection under FHCQIA the professional review action must be taken:

- in the reasonable belief that it furthered quality health care;
- after a reasonable effort to obtain relevant facts;
- after "adequate notice and hearing procedures are afforded to the physician involved or after such other procedures as are fair to the physician under the circumstances;" and
- In the reasonable belief that the action was warranted.

Unless voluntarily waived by the physician under review, adequate notice and hearing is defined by the act as:

- notice to the physician setting forth the proposed action against the physician, the reasons for that action, and the fact that the physician may request a hearing;
- if the physician requests a hearing, a separate notice setting forth the time and place of the hearing and a list of witnesses; and
- a hearing, within 30 days after the second notice, to be held before a mutually acceptable arbitrator or before a hearing officer or panel of individuals "not in direct economic competition with the physician involved."

This last condition of the panel not being comprised of individuals in direct competition with the subject physician is considered to be one of the most important elements to achieving a fair hearing. What is meant by direct economic competition is not clear although a common sense approach to the term would indicate that a physician in a different specialty and geographic outpatient location would be less likely to be in direct economic competition than a physician in the same specialty and geographic area.

In addition, the Act gives specific rights to the reviewed physician concerning the conduct of the hearing, namely, the right:

- to be represented by an attorney or other representative;
- to have a record of the proceedings made and to obtain a copy of the record upon payment of a reasonable charge;
- to call, examine, and cross-examine witnesses;
- to present relevant evidence;
- to submit a written statement at the close of the hearing;
- to receive any written recommendation based on the hearing, including the basis for the recommendation; and
- to receive a written final decision, including the basis for the decision.

Adequate notice and hearing procedures do not apply when a restriction of clinical privileges extends for no longer than 14 days during which an investigation is being conducted to determine the need for professional review actions or may avoid imminent danger to the health of any individual (summary suspension).

The FHCQIA, discussed above, is intended to incorporate behavior that avoids or defeats anti-competitive motives. FHCQIA does not, however, protect physicians against state and federal government actions, that is, actions brought by the Federal Trade Commission or the Wisconsin Department of Justice, and civil rights suits brought in state and federal court. Again, the good faith, due process, and fairness standards incorporated in the FHCQIA would help to create a strong record defending physicians from government prosecution or private civil suit. For purposes of protecting peer review from state actions, physicians do receive protection under the following state laws.

State peer review laws. Wisconsin law Wis Stat §146.37 provides protection to peer reviewers who participate in good faith. Therefore, if an aggrieved subject of review ("subject physician") brings a suit to recover damages for peer review actions under either defamation or antitrust, he or she must initially prove that the reviewers conducted the review in bad faith to sustain a case against the reviewers. Bad faith means intentional and willful misconduct, not inept or mistaken conduct that, if proven, would dissolve the peer review protection.

A corollary statute, Wis. Stat. §146.38, provides that peer review records are confidential and not subject to release except under specific circumstances. This confidentiality precludes attempts by plaintiffs attorneys in medical liability actions to obtain peer review information through "discovery." However, courts have interpreted what records are shielded from discovery by the confidentiality statute. A damaging decision was rendered in the 1985 case *Good Samaritan v Moroney* where an appellate court held that certain information used in the peer review setting is not protected by the peer review confidentiality statute. The court determined that the law did not intend to shield from discovery all information gathered in connection with review, only the record or conclusions of the reviewing body. In this case, the court found that the application for privileges and the information provided to the hospital governing body for its decision whether to appoint or reappoint a physician to the medical staff were not protected. Under this decision, the court may review records to determine whether they are protected under confidentiality laws from discovery by those not otherwise granted access to peer review information.

Good Samaritan v Moroney illustrates that peer review confidentiality, like peer review immunity, is not absolute. Two exceptions were defined by this court-made law. The first exception is that confidential information loses its protection if disclosed to non-peer review bodies, such as hospital governing boards. (A

Continued on page 32

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Continued from page 30

later case, *Mallow v Angove*, established that hospital governing boards are not peer review bodies and that information conveyed to governing boards loses its confidentiality despite statutory language changes extending peer review immunity to hospital governing boards.) The second exception, although not clearly defined, implies that information not generated by the review committee itself is not protected. In the *Good Samaritan* case, the court found that conclusions and records of non-peer review committees, even if those conclusions are relied upon by the review committee, are not protected.

How to legally perform peer review, or, avoiding peer review pitfalls

Develop a plan using available legal definitions. Make certain that your peer review procedures, including the due process provisions, incorporate the available legal protection. Your medical staff bylaws, clinic bylaws, and other peer review programs such as clinic quality assurance programs should be regularly reviewed by experienced legal counsel. Although possessing a plan that reflects current legal standards for fairness and confidentiality does not automatically insulate peer reviewers from legal challenges, it will provide the first line of defense.

Adhere to written plans. Peer reviewers will need to establish that they had conducted review in good faith. Due process provisions outlined in FHCQIA are designed to assure that review was conducted in good faith. This protection is available only if those provisions are followed. If a procedural mistake is made, return to that point in the process where the error was made and remedy the error. For example, if written notice was not delivered to the review subject as provided in the bylaws, go back to that point in the review, deliver the written notice, and continue the review from that point on.

Document the peer review process. Peer review should be documented particularly because that record will establish whether the review subject was provided all available due process and if the review was conducted in good faith. The review subject has the right to access to that written record and this right should be borne in mind when documenting the medical care evaluation.

Maintain strict confidentiality. The peer review record and all information concerning peer review and evaluation must be kept confidential, with access limited to persons or agencies authorized by law. If confidential information is improperly released, that information loses its confidentiality. As the above discussion details, this access may be more

Continued on page 35

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- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme (rarely, Stevens-Johnson syndrome) and toxic epidermal necrolysis or the above skin manifestations accompanied by arthritis/arthralgia, and frequently, fever). 1.5%, usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
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Continued from page 32

limited than many may anticipate. When the access issue arises, it is best to error toward confidentiality rather than release. Consult legal counsel if available for a determination whether release is authorized by law.

Use outside review services when necessary. A large part of fairness and objectivity turns on whether the reviewers were true peers or economically tied with the reviewed physician. This standard must be met to withstand a challenge that the reviewers were not qualified or motivated by economic reasons and therefore engaging in anti-competitive activities (antitrust). Even if the reviewers were not economically motivated to make their review decision, but were potentially in direct economic competition, the FHCQIA protection would not be available and the review decision is open to challenge by the reviewed physician.

Summary

Although peer reviewer has faced many legal challenges, some protection is available to peer reviewers through state and federal law. Peer reviewers must follow specific guidelines provided by these laws to maintain this protection. This article outlined the most prominent protection currently available as well as the corollary duties and requirements by which the peer reviewers must abide.

Loss prevention

The case of nurse Rival and Dr Cutter

Richard G. Roberts, MD, JD, Madison,
and Sally Wencel, JD, SMS staff attorney

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You are the chief of staff at Serenity Community Hospital. One morning while you are on hospital rounds, you are confronted by nurse Rival who demands that you put a stop to the unnecessary cesarean sections being performed by Dr Cutter. Nurse Rival happens to be married to Dr Cutter's principal competitor. After discussing several recent cases of concern, nurse Rival leaves you with these words: "I am very concerned. I know that you will do the right thing. I hope we can resolve this problem without going to the board of directors"

As the chief of staff, you are aware that you have a direct responsibility to monitor the quality and appropriateness of medical care rendered at Serenity. This responsibility is articulated in your medical staff bylaws and required by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) and by the Wisconsin Hospital Code. In addition, you have a professional and ethical obligation to expose incompetent, dishonest, or unethical conduct on the part of other physicians. You also know that refusing to act could leave you and the hospital vulnerable to a law suit for corporate negligence for failure to adequately monitor Dr Cutter. At the same time, you shudder at the thought of an inquisition which might unfairly besmirch Dr Cutter's good reputation or which might result in multi-million dollar antitrust suits for restraint of trade if Dr Cutter's privileges are improperly curtailed. What should you do?

Peer review is a complex and potentially frustrating ethical, legal, personal and professional endeavor. This article is intended to help physicians navigate the sometimes stormy waters of peer review by illuminating the most treacherous and obvious hazards. The beacons of wisdom are offered only as general highlights of peer review; the reader is referred to other writings for a more detailed view of peer review's shallows and depths.

When in doubt, check it out. To adequately diagnose a patient, one must inquire beyond the chief complaint. To adequately sort out a peer review issue, one must investigate beyond the principal allegation. It is impossible to know whether the complaint is meritorious without establishing the facts. While nurse Rival's demand may be improperly motivated (ie, to impugn Dr Cutter), it is just as possible that misinformation, misperception, or a genuine concern for patient care are the reasons for reporting.

By the bylaws. Most medical organizations have documents (hospital and clinic bylaws, rules and regulations, partnership contracts, to name a few) that spell out the procedures to be used when investigating or disciplining a member of the staff. These organizational rules should be understood and followed for they represent the largest Achilles' heel for peer review actions later reversed by reviewing courts. If the bylaws are unclear or inadequate, then consulta-

tion with the medical executive committee, the organization's attorney, or the SMS should be sought.

Choose the chain of command. Chiefs of services, chiefs of staff, and medical executive committees are elected for a reason: to provide leadership in assuring quality of patient care. An individual staff physician does not usually have the desire, time, resources, or authority to conduct a proper investigation. Such issues are best referred to the chief of service or staff. Similarly, the chief may need to turn over some, if not all, of the inquiry to the next higher authority depending upon the nature and complexity of the allegation.

Obligate objectivity. While nurse Rival's accusation cannot be ignored, it cannot be relied upon because of the conflict of interest question. After an allegation has been determined to have some foundation and to merit a more thorough investigation, it is crucial that investigators and reviewers be objective. If any participant in the process was involved in the activity giving rise to the complaint or has an economic interest adverse to the physician under scrutiny, then the matter should be handled by someone who has no potential conflict of interest in the review's outcome.

Objectivity standards recently created by the Federal Health Care Quality Improvement Act (FHCQIA) and court decisions may prevent some medical staffs from performing legal peer review of their own staff members because of size, location, competitive factors, or specialist availability. Peer review is ideally performed by true peers—physicians of the same specialty or subspecialty who can provide an objective assessment (ie, who are not in business nor in competition with the physician under review). Peer review activities that do not meet legal requirements may not be adequate (ie, enforceable) or protected (ie, safe from antitrust liability). Consequently, it may be necessary to use outside reviewers to conduct the inquiry. Other hospital staff, specialty societies, the SMS and some peer review organizations can provide such outside expertise and objectivity.

The record rules. The review should be based on the record: poor documentation can indicate poor medical quality care. If a question arises as to whether the review subject actually performed a particular procedure or considered a certain diagnosis, then the issue can be further explored during an interview with the review subject. For example, if Dr Cutter's records indicate that the reason for all primigravida cesarean sections was "cephalopelvic disproportion," then the reviewers might wish to ascertain, from the charts and from Dr Cutter, whether the record established this diagnosis.

The review process must itself be recorded. Peer review documentation is, for the most part, considered confidential so long as confidentiality is maintained. As the review subject has a right to review the records in question and the documents developed during the review process, it is vital that inflammatory and editorial remarks be kept out of the review record. Specific criticism of care should be documented and substantiated by information taken from the record(s).

Candor and compassion; confidentiality and currency. Most physicians are eager to resolve any questions about their competence. A review can be painful, but should be dealt with in a forthright manner. The potential loss of privileges or license is a serious matter and should be approached in a straightforward fashion. Review findings should be shared with the review subject with compassion, but without apology. The goals are the protection of patients, remediation of the physician, and improvement of the profession.

The review subject's privacy should be respected and review information divulged to others only as necessary and authorized by law. For example, if nurse Rival occasionally inquires about the medical staff's review of Dr Cutter, it would not be appropriate to disclose the peer review findings. You can certainly acknowledge that the matter is being handled.

Finally, current standards of practice and procedure should be relied upon during the review. For example, if all of Dr Cutter's primary cesarean section patients routinely undergo "elective, repeat" sections, it may reflect a practice style that has not kept pace with evolving standards. Many physicians who serve as reviewers comment that their review activities stimulate them to keep current. In dealing with colleagues who may have competency problems, a reviewing physician can more quickly identify and rectify his or her own practice inadequacies. It is also a good investment to maintain procedural guidelines (bylaws) that reflect current standards of fairness and objectivity.

Candor in confronting the issue; compassion in dealing with the review subject; confidentiality in investigating the allegations; and currency in the process and standards applied—these are the attributes of a profession engaged in fair and effective peer review.

Landfall

After assuring yourself that you are not personally or economically involved in Dr Cutter's practice, you review the medical staff bylaws and decide to consult with the hospital

Continued on page 38

Blue Book update

On page 97 of the July 1989 Blue Book edition of the *WMJ* the Wausau Medical Center is erroneously listed as an accredited institution for continuing medical education. The correct entry is the Wausau Hospital.

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Continued from page 36

attorney before you launch your investigation. With the help of counsel, you and two consulting obstetricians who are not economically tied to Dr Cutter review a representative sample of Dr Cutter's delivery records and find a high rate of primary cesarean sections performed for indications that were not always supported by the record. You interview Dr Cutter and reveal your initial findings and concerns. Dr Cutter explodes, first demanding to know who put you up to this witch hunt. Without revealing nurse Rival as the accuser, you explain the purpose of your review and your responsibility for assuring proper patient care. Dr Cutter then admits to being under a great deal of stress because of a recent large medical malpractice settlement where the allegation was failure to perform a timely cesarean delivery. The medical executive committee and the quality assurance committee are consulted and decide that there would be no limitation of privileges so long as Dr Cutter completed a continuing medical course on current indications for cesarean section. In addition, Dr Cutter is encouraged to consider emotional support through the SMS malpractice support network or through private counseling.

Finally, as all happy endings go, nurse Rival divorces and sails away with Dr Cutter to the South Seas where they set up a natural childbirth clinic.

Public health

Mammography guidelines and practices in Wisconsin

Patrick L. Remington, MD,
and Paula Lantz, MA, Madison

Over the past 20 years, studies have demonstrated the effectiveness of mammography in reducing mortality from breast cancer.[1] Based on these findings, eleven national health organizations (American Academy of Family Physicians, American Association of Women Radiologists, American Cancer Society, American College of Radiology, American Medical Association, American Osteopathic College of Radiology, American Society for Therapeutic Radiology and Oncology, American Society of Internal Medicine, College of American Pathologists, National Cancer Institute, and National Medical Association) recently announced an agreement on the components and frequency of a breast cancer screening program. Despite consensus on the value of screening mammography, however, not all women are taking advantage of this screening test. The purpose of this paper is to describe the self-reported use of mammography among Wisconsin women and to compare this usage with current guidelines.

Dr Remington is a medical epidemiologist in the Chronic Disease Surveillance Unit, Section of Environmental and Chronic Disease Epidemiology, Wisconsin Division of Health. Ms Lantz is a senior research specialist in the Center of Health Policy and Program Evaluation at the University of Wisconsin, Madison. Part of this work was made possible by a grant from the National Cancer Institute, grant number R01-CA-46883. Reprint requests to: Patrick Remington, MD, Wisconsin Division of Health, PO Box 309, Madison, WI 53701-0309. Copyright 1989 by the State Medical Society of Wisconsin.

Methods

To assess the self-reported use of mammography, data from the 1,389 women interviewed in the Behavioral Risk Factor Surveys for 1987 and 1988 were analyzed. These surveys are random digit-dialed telephone surveys conducted by the Wisconsin Survey Research Laboratory.[2] Women were asked 1) have you ever heard of a mammogram? 2) have you ever had a mammogram? 3) about how long was it since your last mammogram? and 4) what was the reason your last mammogram was conducted? Women were considered to have had a "screening" mammogram if it was done as part of a routine checkup, rather than because of a breast problem or a history of breast cancer. Finally, the self-reported use of mammography was compared with the current screening guidelines to estimate age-specific levels of compliance.

Results

In 1987–1988, awareness of mammography was very high among this sample of Wisconsin women. Approximately 93% of the women reported that they had previously heard of a mammogram. Women between the ages of 40 and 74 were more likely to have *ever* had a mammogram and were more likely to have had a mammogram within the past year compared with older or younger women (see the Table and Figure).

To determine compliance with the current mammography screening

Continued on page 40

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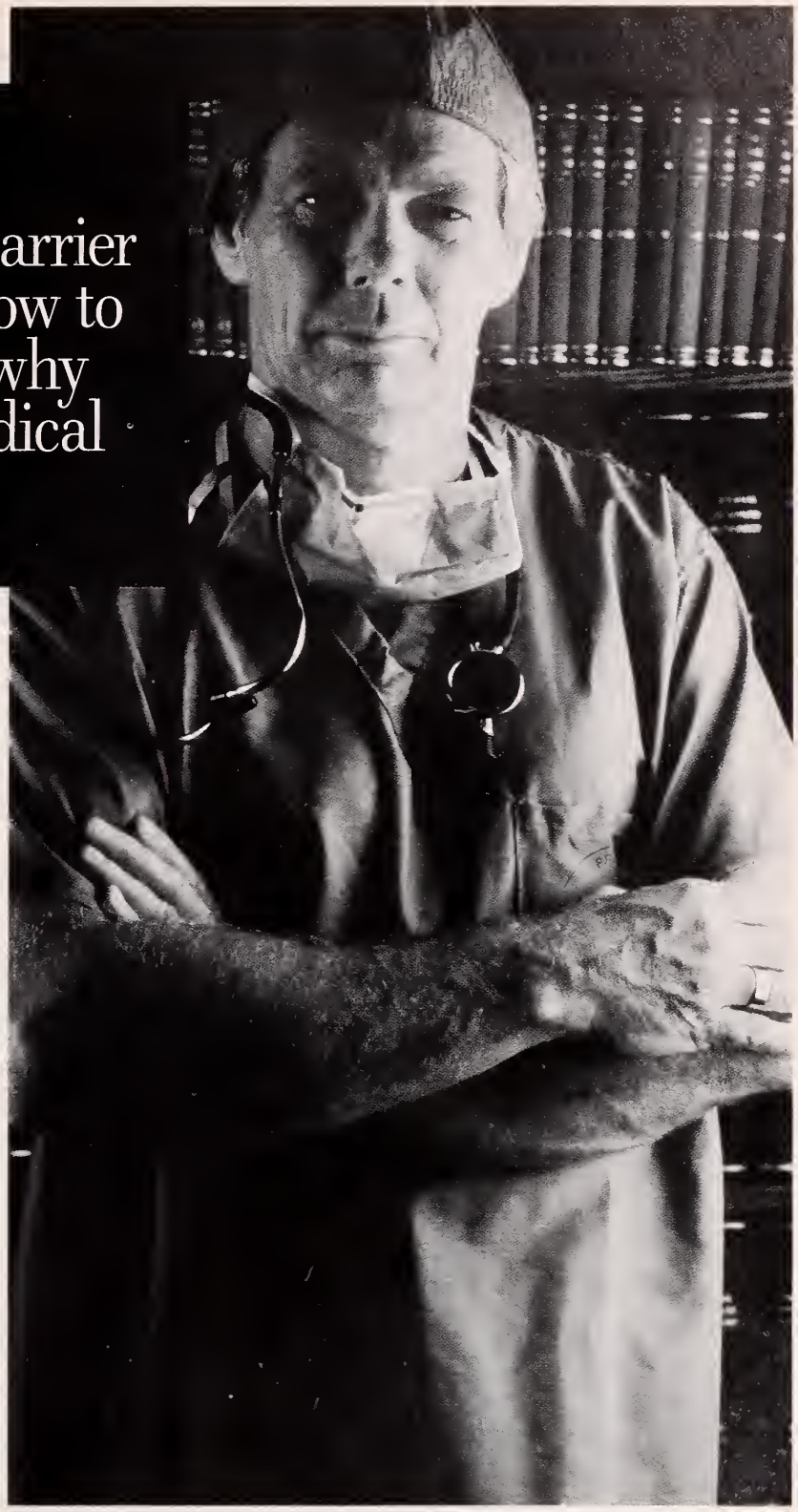

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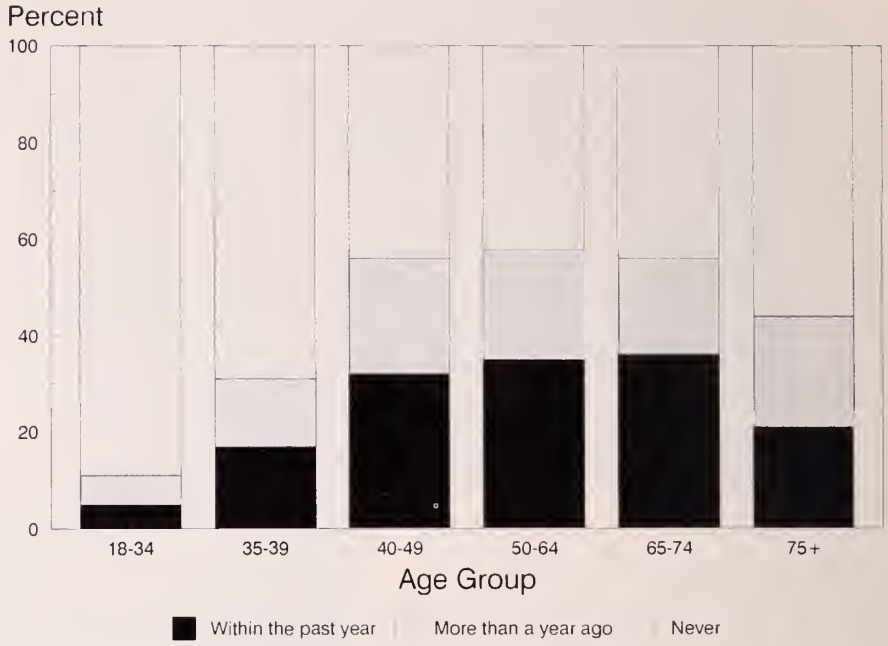
Continued from page 38

guidelines for asymptomatic women, women whose last mammogram was conducted because of breast symptoms (N = 81) or women already diagnosed with breast cancer (N = 19) were excluded. To be considered compliant, a woman age 50 or over had to report having had a mammogram within the past year, and a woman between the ages of 40 and 49 had to report having had a mammogram within the past two years.

The overall level of compliance with the screening guidelines for women 40 years of age and older was 33% and for women 50 years of age and older was 31% (Table). Compliance with the guideline was highest among women 40–49 (42%) and decreased with increasing age.

Continued on page 42



Time since last mammogram among women in Wisconsin.

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Time since the last mammogram and compliance with current screening guidelines among women in Wisconsin, 1987–88.

Age group	(N)	Time since last mammogram* Past year	More than a year	Never	Percent compliant with guidelines**
18–34	(479)	5%	6%	89%	—
35–39	(163)	17	14	69	—
40–49	(186)	32	24	44	42
50–64	(249)	35	23	42	35
65–74	(170)	36	20	44	32
75+	(142)	21	23	56	21
40 and above		32	22	46	33
50 and above		32	22	46	31
65 and above		29	21	50	27

* Includes a mammogram for any reason, including for a breast problem or a past history of breast cancer.

** The guidelines are a mammogram every 1–2 years for women 40–49 years of age and every year for women 50 years of age and older. Women whose last mammogram was done because of a breast problem or with a history of breast cancer were excluded from this analysis.

Continued from page 40

Discussion

Until recently, the age-specific guidelines for screening mammograms developed by professional, voluntary, and government agencies had differed, causing some confusion for physicians and their patients. Now, major health organizations support the following guidelines:

1. Clinical examination of the breasts and mammography are the basic detection methods. The examinations are complimentary and both are necessary to achieve maximum detection rates.
2. It is recommended that the screening process begin by age 40 and consist of annual clinical examination with screening mammography performed at one to two year intervals.
3. Beginning at age 50, both clinical examination and mammography should be performed on an annual basis.
4. The recommendations apply only to women without signs or symptoms of breast cancer; the frequency and type of examination will vary for the individual with symptoms and should be determined by the responsible physician.

Data presented in this report reveal a discrepancy between these current guidelines and the current practices in Wisconsin. Less than half of women ages 40 to 49 and approximately one-third of the women age 50 or older are getting screening mammograms in accordance with the current consensus guidelines. In addition, almost half of all women over 40 years of age—over 400,000 women in Wisconsin—have never had a mammogram.

It has been estimated that about a third of over 800 annual breast cancer deaths in Wisconsin could be prevented if current screening guidelines were followed[3]. Physicians and other health professionals, public health groups, voluntary agencies, and insurers need to coordinate efforts to educate women regarding the benefits of regular mammograms and physical breast examinations, to increase screening opportunities, and to reduce the barriers to mammography, including cost and misinformation.

Series coordinators

The Wisconsin Division of Health's Henry Anderson, MD, chief of the Section of Environmental and Chronic Disease Epidemiology, and Patrick Remington, MD, are coordinating this public health series for the *Wisconsin Medical Journal*. The Division, under a grant from the National Cancer Institute, has been working with the American Cancer Society to support the upcoming Breast Cancer Detection and Awareness Program (see page 6 in this *Journal* for a description of the program). This program will be conducted during October 1989, and is intended to increase the awareness and use of mammography among women in Wisconsin. In particular, it is hoped that women who have never had a mammogram in the past will have one this year. With the support from Wisconsin physicians, programs such as this one will continue to increase the awareness and use of mammography and eventually lead to a reduction in the breast cancer death rate in Wisconsin.

References

1. Council on Scientific Affairs. Mammographic screening in asymptomatic women aged 40 years and older. *JAMA* 1989;261:2535–2542.
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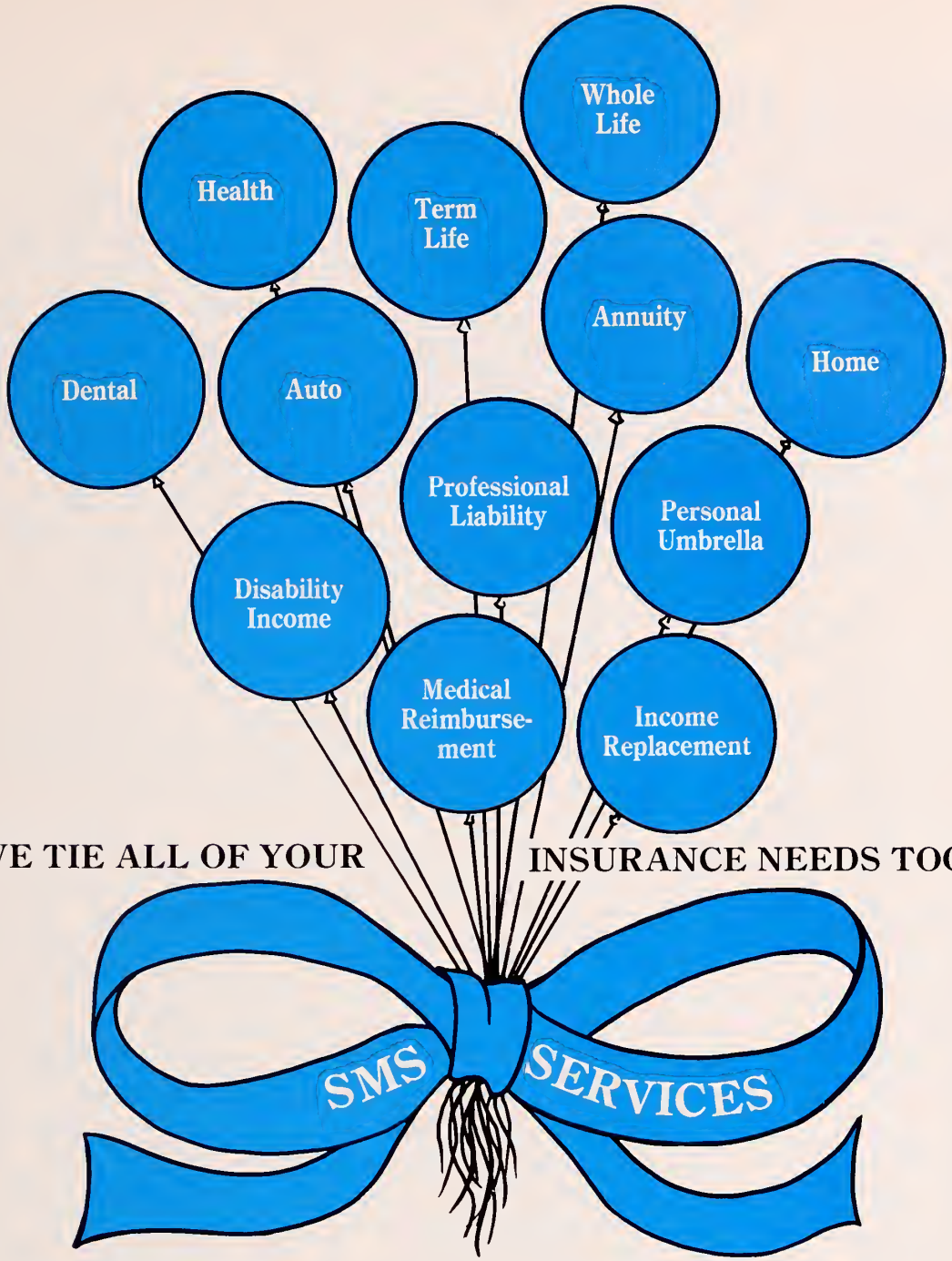
3. National Cancer Institute. Cancer control objectives for the nation: 1985–2000. US Department of Health and Human Services, 1986. NIH Publication No 86-2880 No 2.



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HMO financial reports

The year-end statements for 1988 and the first quarterly report for 1989, for Wisconsin's HMOs, as provided by the OCI, can be found on the next two pages. Numbers do not tell the whole story, so physicians requiring further information should contact either the OCI or the chief financial officer of the HMO in question.

"The problem with (the) financial risk model (used by the Office of the Commissioner of Insurance) is that it assumes that physicians have perfect market information and freedom to contract with only those HMOs that are financially stable," wrote Thomas L. Adams in a recent secretary's report (*Wis Med J* 1989;88(6):4). "Physicians, however, often do not know the HMO's financial health. . . . . Mere representation to the HMO's board of directors does not give physicians perfect or current information concerning the HMO's financial performance or stability."

Recognizing this problem, and that recent legal changes have increased the incentive for HMOs to enter into hold harmless agreements with physicians, Adams sought to provide greater accountability of HMO administrations to their contracting physicians. To this end, the *WMJ* will publish the quarterly financial statements of Wisconsin HMOs and articles explaining the hold harmless law and how best to respond to it.

CES Foundation
of the State Medical Society of Wisconsin

The persons and organizations named below made contributions to the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin for the month of May 1989.

Voluntary contributions
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Lakeside endowment fund
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Memorials
Tom and Diane Adams
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LeRoy and Janice Johnson
James Lundberg

In memoriam
Benjamin Brindley, MD
Myra Burke, MD
Edie Epstein
Elaine Wiersum

Barbara Scott Maroney fund for research of diabetes
Jean M. Steele

Financing the stone—AMA commemorative stone
Richard C. Ulmer, MD

Richland professionals for child abuse prevention coloring book
SMS Services

Office of the Commissioner of Insurance HMO 1988 annual statement summary—unaudited

	Total Assets	Total Liabilities	Net Worth	Total Revenue	Total Expenses	Net Income	Enrollees
Aetna	1,826,408	1,286,264	540,144	4,282,063	5,483,858	(754,839)	5,374
Comm Choice	1,675,885	1,295,695	380,190	3,751,603	3,723,297	28,306	4,377
Compcare	20,974,851	17,310,944	3,663,907	124,118,539	123,205,889	641,072	143,612
Centurion	1,815,805	511,002	1,274,803	4,772,326	4,723,223	49,103	4,197
Dean	17,296,773	14,976,745	2,320,028	74,852,763	72,926,199	750,127	89,669
Family	33,135,629	16,702,746	16,432,883	66,820,721	65,559,016	1,261,705	66,155
GHC–EC	2,386,965	2,042,139	344,826	9,727,293	9,592,234	135,059	10,429
GHC–SC WI	9,236,229	8,103,876	1,132,353	34,312,534	34,203,058	109,476	44,855
GLHP	461,484	243,973	217,511	685,923	684,595	928	1,583
Groupcare	224,615	0	224,615	15,215	0	15,215	0
Grp Health	224,615	0	224,615	15,215	0	15,215	0
HMO Midwest	1,405,068	1,205,068	200,000	5,357,658	6,573,274	(1,215,616)	7,153
HMO of WI	4,718,212	3,602,663	1,115,519	26,054,012	25,889,014	133,398	33,387
Hosp SIS	458,070	164,390	293,680	1,879,018	1,988,700	(109,682)	433
Maxicare	12,455,492	6,606,229	5,819,263	43,349,595	43,782,569	(456,753)	52,630
Med Assoc	454,616	91,025	363,591	2,527,109	2,358,704	168,405	2,549
Metlife	887,146	494,929	392,217	4,125,362	5,573,794	(1,308,432)	6,316
Midelfort Cooperative	N/A	N/A	N/A	16,985,782	16,985,782	0	N/A
Midelfort	3,582,149	2,861,739	720,410	12,082,688	12,216,112	(133,424)	30,315
Network	2,113,697	1,553,631	560,066	17,146,848	16,936,849	119,919	22,866
NCHPP	6,224,353	4,840,143	1,384,210	29,955,256	30,108,957	(153,701)	28,804
Phys Plus	4,428,014	2,906,679	1,521,335	53,059,032	52,864,466	144,788	55,619
Primecare	15,215,100	13,179,268	2,035,832	71,279,486	69,732,800	1,051,544	89,150
Samaritan	14,869,729	10,896,587	3,973,142	84,464,544	86,362,152	(1,897,608)	94,902
Security	14,723,002	12,282,091	2,440,911	61,164,487	61,102,218	62,269	67,752
U-Care	—late—		0	0	0	0	
United	1,947,640	1,649,705	297,935	6,433,029	7,284,144	(851,114)	13,525
WHOIC	7,512,856	5,737,845	1,775,011	52,438,754	52,129,144	308,351	70,826
EHIC	N/A	N/A	N/A	38,509,640	43,175,146	(2,886,813)	42,692
Q-Care	N/A	N/A	N/A	10,132,072	10,100,617	31,455	10,668
Allhealth	N/A	N/A	N/A	4,347,844	4,339,708	8,136	4,338
WHPP-EC	N/A	N/A	N/A	15,531,393	16,726,906	(1,195,513)	11,948
WHPP-GrnBay	N/A	N/A	N/A	20,704,763	21,327,067	(622,304)	26,405
WHPP-Trane	N/A	N/A	N/A	7,308,810	7,290,830	17,980	8,009
WHPP-WINN	N/A	N/A	N/A	11,548,270	12,814,788	(1,266,518)	11,089
WHPP-WISAP	N/A	N/A	N/A	1,213,666	1,092,597	121,069	1,296

Office of the Commissioner of Insurance HMO quarterly statement summary—first quarter, 1989 unaudited

	Total Assets	Total Liabilities	Net Worth	Total Revenue	Total Expenses	Net Income	Enrollees
Aetna	2,246,451	1,599,761	646,690	1,794,200	2,238,827	(293,453)	7,772
Comm Choice	1,977,626	1,608,875	368,751	1,292,257	1,300,770	(8,513)	4,136
Compcare	21,424,221	18,389,535	3,034,686	31,844,455	32,610,381	(629,221)	138,606
Centurion	1,534,641	260,007	1,274,634	47,562	47,731	(169)	0
Dean	20,333,289	17,481,167	2,852,122	22,007,542	20,957,830	671,827	93,114
Family	36,152,500	19,037,380	17,115,120	20,041,438	19,368,514	672,924	71,352
GHC-EC	2,390,264	1,983,246	407,018	3,066,486	3,004,294	62,192	12,196
GHC-SC WI	9,413,723	7,734,341	1,629,382	7,997,201	7,456,976	537,225	35,615
GLHP	527,278	298,942	228,336	426,644	416,219	10,825	2,016
HMO Midwest	2,093,749	1,893,749	200,000	2,754,020	2,761,073	(7,053)	9,452
HMO of WI	6,105,126	4,906,922	1,198,204	8,582,828	8,459,723	63,155	39,081
Hosp SIS	—late—		0	0	0	0	
Maxicare	—late—		0	0	0	0	
Med Assoc	485,671	84,615	401,056	679,760	642,253	37,507	2,731
Metlife	1,467,596	1,088,268	379,328	1,728,620	1,995,223	(266,603)	8,881
Midelfort	3,901,020	3,085,050	815,970	8,673,747	8,572,229	101,518	28,974
Network	2,292,649	1,740,829	551,820	5,034,173	4,987,746	33,329	23,035
NCHPP	7,409,266	5,502,273	1,906,993	7,345,176	6,822,393	522,783	28,442
Phys Plus	5,641,084	4,161,751	1,479,333	15,313,025	15,355,026	(42,001)	58,485
Primecare	17,598,793	15,373,903	2,224,890	22,617,031	22,348,907	189,058	102,349
Samaritan	19,876,761	15,704,973	4,171,788	20,965,389	20,766,742	198,647	90,645
Security	16,319,097	13,537,100	2,781,997	17,532,506	17,193,582	338,924	67,515
U-Care	2,835,297	2,504,094	331,203	2,676,619	2,658,367	18,252	12,064
United	2,938,163	2,547,633	390,530	2,959,898	3,267,303	(307,405)	N/A
WHOIC	10,874,208	8,577,511	2,296,697	19,437,664	19,179,032	258,632	88,426
EHIC	N/A	N/A	N/A	9,574,690	11,050,130	(973,790)	40,059
Q-Care	N/A	N/A	N/A	2,684,623	2,675,786	8,837	10,383
Allhealth	N/A	N/A	N/A	1,395,380	1,391,390	3,990	4,003
WHPP-EC	N/A	N/A	N/A	1,549,752	2,022,940	(473,188)	6,088
WHPP-GrnBay	N/A	N/A	N/A	6,263,487	6,624,418	(360,931)	25,691
WHPP-Trane	N/A	N/A	N/A	645,329	852,294	(206,965)	2,823
WHPP-WINN	N/A	N/A	N/A	1,017,168	852,873	164,295	2,656
WHPP-WISRAP	N/A	N/A	N/A	356,317	348,688	7,629	1,319

SMS offices open for nominations

The SMS House of Delegates Nominating Committee will again this year meet in conjunction with the Medical Issues Conference, Oct 7, at the Embassy Suites Hotel in Brookfield. The committee will receive nominations and interview candidates for the following positions for which a proposed slate is to be presented to the House at the 1990 annual meeting, April 26–28, 1990, in Green Bay. The committee will seek nominations for the following positions:

- President-elect for 1990–1991;
- Treasurer for 1990–1991 to succeed John J. Foley, MD, of Menomonee Falls;
- Vice speaker of the House of Delegates for 1990–1992 to succeed Cyril M. Hetsko, MD, of Madison (completing first two-year-term);
- AMA delegates for calendar years 1991 and 1992 to succeed John K. Scott, MD, of Madison, Patricia J. Stuff, MD, of Bonduel, and DeLore Williams, MD, of West Allis;
- AMA alternate delegates for calendar year 1991 and 1992 to succeed Jerome W, Fons, Jr, MD, of Greenfield, Cyril M. Hetsko, MD, of Madison, and John P. Mullooly, MD, of Milwaukee.

Treasurer Foley is not eligible for reelection since the SMS Constitution provides that the treasurer shall be limited to nine consecutive terms. Dr Foley was elected treasurer in 1981. All of the other incumbents are eligible for reelection.

Physician briefs

Richard G. Roberts, MD,* of Madison, was recently installed as the 42nd president of the Wisconsin Academy of Family Physicians during the academy's 1989 annual meeting in La Crosse. **Terry L. Hankley, MD,** of Waupaca was elected president-elect of the group. Dr Roberts is speaker of the SMS House of Delegates.

James D. Michael, MD,* recently retired from practice after 29 years of service to the Sheboygan-area community. An internal medicine specialist, Dr Michael received his medical degree from Washington University School of Medicine in St Louis and completed an internship at Barnes Hospital, also in St Louis. He served a residency at Cincinnati General Hospital.

Michael Wenman, MD, recently joined the staff of the Marshfield Clinic-Lakeland Center as a specialist in emergency medicine. Dr Wenman received his medical degree from the Medical College of Wisconsin and served a residency at Hennepin County Medical Center in Minneapolis. Dr Wenman previously served as a public health physician in Warrensburg, Mo.

Victor S. Falk, MD,* of Stoughton, recently received the Special Recognition Award of the Wisconsin Medical Alumni Association. Dr Falk, who for 25 years served as chair of the *Wisconsin Medical Journal* Editorial Board and medical editor, is currently editor of the *Wisconsin Medical Alumni Quarterly.* He received the Director's Award from the SMS in 1984 and was inducted into the Fifty Year Club at this year's annual meeting.

Leon Cass Terry, MD, PhD,* of Milwaukee, has been appointed professor and chair of the Department of Neurology at the Medical College of Wisconsin. A 1969 alumnus of the Medical College, Dr Terry previously served as professor of neurology at the University of Michigan.

E.J. Slater, MD, was recently named chief of Medical Service at the Department of Veterans Affairs Medical Center in Tomah. Dr Slater, who

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is a board-certified specialist in internal medicine, came to the center last year from Iron Mountain, Mich.

David E. Chakoian, MD,* recently joined the staff of the Mariner Medical Clinic in Superior. A family practice physician, Dr Chakoian graduated from Mayo Medical School in Rochester, Minn. He completed an internship at the University of Minnesota and a residency at North Memorial Hospital in Robbinsdale, Minn.

Lauree Thomas, MD, of Milwaukee, was recently appointed assistant dean for minority affairs at the Medical College of Wisconsin. She is currently president of the Cream City Medical Society in Milwaukee and has been involved with the Isaac Coggs Community Health Center and the Geriatrics Institute at Sinai-Samaritan Medical Center in Milwaukee for the past two years. She has also served as a medical consultant for DePaul Rehabilitation Hospital. Dr Thomas graduated from the University of Wisconsin Medical School and served a residency in internal medicine at Mount Sinai Medical Center.

William J. Stastny, MD,* has joined the medical staff of the Sheboygan Clinic. Dr Stastny received his medical degree from the Medical College of Wisconsin and served a family practice residency at St Mary's Hospital in Milwaukee.

Robert A. Dickens, MD, was recently appointed medical director for the Northeast Psychiatric Institute at Holy Family Medical Center in Manitowoc. A native of Manitowoc, Dr Dickens received his medical degree from Tufts University School of Medicine in Boston and served an internship at the University of Wisconsin Medical School in Madison. He completed residencies at the Boston VA Hospital and Harvard University.

Michael J. Schmalz, MD,* recently joined Gastroenterology Consultants in Racine. Dr Schmalz received his medical degree from the Medical College of Wisconsin, where he also completed an internship and a residency in internal medicine. He has also served as a clinical instructor in the Department of Gastroenterology at the college.

Jeffrey L. Musson, MD,* and **Mary E. Pagano, MD,** recently joined the staff of the Racine Medical Clinic. An obstetrician-gynecologist, Dr Musson graduated from Michigan State University-College of Human Medicine and served an internship at Blodgett-St Mary's Hospital in Grand Rapids. Dr Pagano, a internal medicine specialist, received her medical degree from Ohio State University and served an internship at the University of Illinois.

Charles E. Wirtz, MD,* of Monroe, recently joined the Internal Medicine Department of the Monroe Clinic. Dr Wirtz received his medical degree from the University of Iowa College of Medicine and completed a residency at St Joseph's Hospital and the Marshfield Clinic. He previously practiced with the Public Health Service in Iowa.

Lea G. Cornell, MD, of Wonewoc, recently announced her affiliation with Gundersen Clinic. A family practitioner, Dr Cornell received her medical degree from the University of Wisconsin Medical School and completed a residency at Rockford Medical Education Foundation, University School of Medicine, in Rockford, Ill. Before coming to Wonewoc she was an emergency room physician at Rockford Memorial Hospital.

Rudolph J. Scrimenti, MD,* of Milwaukee, gave a presentation on Lyme disease on WQFM radio in June.

Kenneth Stevens, MD, James V. Thomalla, MD,* Peter N. Smith, MD, and **Michael T. Medchill, MD,** recently joined the Marshfield Clinic staff. A cardiologist, Dr Stevens received his medical degree from Loyola University in Chicago and completed a residency in internal medicine at Jackson Memorial Hospital-University of Miami. Dr Thomalla received his medical degree from Southern Illinois University School of Medicine in Springfield and completed an internship and residency at Indiana University Medical Center in Indianapolis. He is a urologist. Dr Smith came to Marshfield from Massachusetts General Hospital in Boston. He received his medical degree from the Chicago Medical School and completed a residency in internal medicine at Mayo Graduate School of Medicine. Dr Medchill, an obstetrician-gynecologist, joined the clinic's Chippewa Falls Center. He received his medical degree from the Medical College of Wisconsin and completed a residency at Maricopa Medical Center in Phoenix.

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Membership update

The following information is being provided from membership reports and from individual members for updating the 1989 Membership Directory as published in the August 1989 issue of the *Wisconsin Medical Journal*. Because of space limitations, address changes and phones numbers will not be included in this update, although they will be changed in the SMS membership records.

County transfers will be included when processing has been completed by the membership records staff.

Changes in practice specialties (as used by the AMA) and changes in board-certified specialties as listed by the American Board of Specialties (see the August 1989 membership directory) are included. Practice specialties appear before the slash (/) and board-certified specialties appear after the slash.

Ancheta, MD, Valentino S.
316 Steele St
Algoma, WI 54201

Beaumont, DO, Robert J.
237 Wisconsin Ave
Waukesha, WI 53186

Continued on page 50

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Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:
1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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Continued from page 49

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8100 W Imperial Drive
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PS OTO

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PO Box 15116
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6602 Pilgrim Road
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Sister Bay, WI 54234

Trotter, MD, Dana R.
2405 Northwestern Ave
Racine, WI 53404
IM/IM

Westley, Jr, MD, William
2500 W Layton Ave, #220
Milwaukee, WI 53221

Zarzynski, MD, James M.
5310 W Capitol Drive
Milwaukee, WI 53216

CES Foundation
of the State Medical Society of Wisconsin

The persons and organizations named below made contributions to the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin for the month of June 1989.

Voluntary contributions
R. D. Fritz, MD
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Paul Steingraeber, MD
Jack Strong, MD

Lakeside endowment fund
Anonymous

Fort Crawford endowment fund
Crawford County Pharmaceutical Manufacturing Association

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Anthony Ziebert, MD
Jefferson Davis family
William O. Myers, MD
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Beaumont 500
Vernon County Medical Society

Memorials
Mrs J. George Crownhart
Dane County Medical Society
Dr and Mrs E. J. Nordby
Dr and Mrs Herbert Sandmire
State Medical Society of Wisconsin
Earl and Alice Thayer

In memoriam
Helen Cooper
William P. Curran, MD
Charles Geppert, MD
Jay S. Goodman, MD
Howard J. Lee, MD
Vincent Nordholm, MD
Frank J. Pallasch, MD
Ruth S. Stern, MD
Ronald Thune, MD
Hugh H. Williams, MD

General loan fund
Mrs J. George Crownhart

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Dr and Mrs Herbert Sandmire

Earl and Alice Thayer lecture fund
Earl and Alice Thayer

Medical Writing Contest

Contestants:
- Medical students enrolled in either of Wisconsin's two medical schools
- Residents actively training in Wisconsin

Awards:
- One student; one resident
- Recognition certificate
- $500
- Publication in the *Wisconsin Medical Journal*
- Presentation at the 1989 SMS Annual Meeting

Rules:
- Subject matter must fall within the parameters of scientific medicine: clinical, case report, research and review
- Paper must be original, unpublished, and credited to one author (although multiple authors may be listed)
- Limited to 10 pages, typewritten, double-spaced, 1-inch margins
- Illustrations are encouraged, but must be included in the 10-page length limit
- The Editorial Board of the *Wisconsin Medical Journal* serves as the panel of judges and has final authority in all decisions

Criteria:
- *Scientific merit:* research methods, data analysis, subject or patient population selection, control of variables, literature analysis
- *Applicability:* usefulness of results to private practitioner, academician, researcher
- *Content:* depth of analysis, continuity of discussion supporting the main thesis, feasibility of conclusions
- *Innovation:* uniqueness of idea, creativity, improvement of existing techniques, previously undiscovered data, advancement of basic understanding
- *Organization*
- *Clarity of writing*

Deadline: Entries must be received by the *Wisconsin Medical Journal* no later than February 15, 1990: PO Box 1109, Madison, WI 53701

Obituaries

Ruth S. Stern, MD, 78, of Milwaukee, died Jan 24, 1989, in Milwaukee. Born Jan 5, 1911, Dr Stern graduated from Marquette University School of Medicine, Milwaukee, and served her internship at Mt Sinai Hospital in Milwaukee. She was a member of the Medical Society of Milwaukee County, the SMS, and the AMA.

Jay S. Goodman, MD, 80, of Milwaukee, died March 30, 1989, in Milwaukee. Born Nov 10, 1908, in Milwaukee, Dr Goodman graduated from the University of Wisconsin Medical School, Madison, and completed his internship at Jewish Hospital, St Louis, Mo. His residency was completed at Barnes Hospital, St Louis, and Bellevue Hospital in New York City. He was a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are one daughter, Janice Adadi, of Peteh, Israel; and three sons, Dr William, of Bayside; James, of Rochester, NY, and Dr J. Jay Goodman, of River Hills.

Hugh H. Williams, Jr, MD, 84, retired Sparta physician, died April 3, 1989, in Tomah. Born Feb 17, 1905, in Sparta, Dr Williams graduated from the University of Nebraska College of Medicine, and completed his internship and residency in Omaha and Chicago. Dr Williams was affiliated with the Sparta Clinic from 1934 until his retirement in 1983. In addition to his medical practice, Dr Williams served as mayor of Sparta for 10 years, was Monroe County coroner, Sparta city health officer, and a railroad surgeon. He was a member of the Monroe County Medical Society, the SMS, and the AMA. Surviving are his widow, Helen DeVore Williams; a son, Hugh, III, of Tomah; and a daughter, Susan De Vore Kirkham, of Sacramento.

Howard J. Lee, MD, 83, of Milwaukee, died April 12, 1989, in Milwaukee. Born June 16, 1905, in Monticello, Iowa, Dr Lee graduated from the University of Wisconsin Medical School, Madison, and served his internship at Research Hospital, in Kansas City, Mo. His residency was completed at the University of Wisconsin Hospital and Clinics (formerly Wisconsin General Hospital). He was a member and served as president of the Milwaukee Academy of Medicine, and a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are two daughters, Nancy Leeming, and Patricia Yankus.

Frank J. Pallasch, MD, 82, of Fox Point, died April 21, 1989, in Fox Point. Born Oct 10, 1906, in Milwaukee, Dr Pallasch graduated from Marquette University School of Medicine, Milwaukee, and served his internship at Milwaukee Maternity and General Hospital. He was a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Evelyn; a daughter, Jan Willems, of Antioch, Ill; and a son, James J., of Greenwood Village, Colo.

Francis J. Pennington, Jr, MD, 69, of Sturgeon Bay, died April 25, 1989, in Sturgeon Bay. Born July 20, 1919, in Bulls Gap, Tenn, Dr Pennington graduated from Washington University Medical School, St Louis, Mo, and completed his internship and residency at St Louis City Hospital. He was in private medical practice in St Louis until he moved to Sturgeon Bay in 1977. Dr Pennington was on the medical staff of Door County Memorial Hospital, Sturgeon Bay, until his retirement in 1982. Surviving are his widow, Jeanne; and five children, Richard L., of Oil City, Pa; Robert H., Francis E., and Martha B., all of St Louis; and JoAnn P. Molera, of Franktown, Va.

Nathan Slutzky, MD, 83, of Bayside, died April 29, 1989, in Milwaukee. Born Oct 8, 1905, in Russia, Dr Slutzky graduated from Marquette University School of Medicine, and served his internship at Milwaukee County General Hospital. Dr Slutzky had practiced in Milwaukee from 1921 until his retirement in 1980. Surviving are his widow, Molly, and a son, Melvin J., of Mequon.

Henry E. De Groot, MD, 61, of Racine, died May 12, 1989, in Racine. Born Oct 26, 1927, in Mt Pleasant, Dr De Groot graduated from Marquette University School of Medicine. His internship and residency were completed at Harper Hospital in Detroit. Dr De Groot practiced medicine in Racine for 29 years and was a member of the medical staff of St Luke's Hospital and St Mary's Medical Center. He also served as chief of staff at St Mary's for two years. He was a fellow of the American College of Physicians and he was a member of the Racine County Medical Society, the SMS, and the AMA. Surviving are his widow, Janet; and five children, Peter, of Racine; Kathy Hauser, of Detroit; Judy Zoeller, of Ocala, Fla; Jane Klein, of St Augustine, Fla, and Lori Poston, of Milwaukee.

Vincent W. Nordholm, MD, 79, of Stoughton, died May 13, 1989, in Stoughton. Born Feb 28, 1910, in Red Wing, Minn, Dr Nordholm graduated from Northwestern University Medical School, Chicago, and served his internship at Fairview Hospital, Minneapolis. Dr Nordholm began his medical practice in Ellsworth and practiced there from 1937 to 1946 when he moved to Stoughton. He retired from practice in 1979. He was president of the Wisconsin Associ-

ation of Senior Physicians, and had served as medical director of the Skaalen Sunset Home, Stoughton, for 25 years. In 1979 he was honored by the city of Stoughton with a Recognition Day for medical service to the community and in 1979 he received the Distinguished Service Award from the Stoughton Hospital Foundation for 30 years of service. He was a charter member of the American Academy of Family Physicians, a member of Dane County Medical Society, the SMS, and the AMA. Surviving are his widow, Florence; and two daughters, Ann Nelson, of Stoughton, Kristen Roethe, of Edgerton, and six grandchildren.

David J. Sievers, MD, 68, of Berlin, died May 16, 1989, in Berlin, He was born Feb 20, 1921, in Duluth, Minn, and graduated from the University of Wisconsin Medical School in Madison. His internship and residency were completed at Milwaukee Lutheran Hospital. Dr Sievers practiced in Berlin for 38 years, and retired in 1986. He had been a member of the medical staff of Berlin Memorial Hospital, a member of the Green Lake/Waushara County Medical Society, the SMS, and the AMA. Surviving are his widow, Naomi; two daughters, Mary Beane, of Fairfield, Calif; Naomi Kayon, of Burke, Va; and one son, Dr John Sievers, of Littleton, Colo.

Peter J. Groessl, MD, 56, of Green Bay, died May 22, 1989, in Green Bay. He was born on August 25, 1932, in Algoma, and graduated from Marquette University School of Medicine in 1961. Dr Groessl completed his internship and residency at Milwaukee County General Hospital. He practiced in Green Bay from 1972 until 1987, when he retired. He was a member of the American Academy of Ophthalmology, the Brown County Medical Society, the SMS, and the AMA. Surviving are three daughters, Kristin and Carolyn, of Washington, DC; Sarah, of Milwaukee; and two sons, Erik, of Chicago, and Matthew, of Green Bay.

Ronald G. Thune, MD, 40, of Green Bay, died May 27, 1989, in Menominee. He was born in Mitchell, SD, Nov 26, 1948. Dr Thune graduated from the University of South Dakota School of Medicine, and completed his internship and residency at the University of Wisconsin Hospital and Clinics in Madison. He had been a member of the West Side Clinic, Green Bay, since 1983. Dr Thune was a member of the American Society of Gastroenterology, the American College of Physicians, and the American Society of Liver Disease. He also was a member of the Brown County Medical Society, the SMS, and the AMA. Surviving are his widow, Karen; and two sons, Ryan and Nicholas, both at home.

Ralph W. Garens, MD, 85, Milwaukee, died June 15, 1989, in Milwaukee. Born June 6, 1904, in Milwaukee, Dr Garens graduated from Northwestern University Medical School, and completed his internship at Columbia Hospital in Milwaukee. He began his medical practice in Milwaukee in 1930 and retired in 1964. Dr Garens had been on the medical staff of Columbia and St Joseph's Hospitals. He served in the US Army Medical Corps during World War II. He was a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Hazel, of Milwaukee; two sons, William, of Eden Prairie, Minn; Lt Col Ralph W. Garens, retired, of Sparta; and a daughter, Ruth Mueller, of Madison.

David Bruce Buffington, MD, 32, Cudahy, died June 17, 1989, in Milwaukee. Born in Glenwood, Iowa, May 6, 1957, Dr Buffington graduated from the University of Rochester Medical School, NY, and completed his residency at Baylor College of Medicine, in Houston. He was named medical director of the Milwaukee Comprehensive Community Health Clinic in 1988. Surviving are his mother, Barbara, of Glenwood, Iowa; a sister, Martha Cheney; and a brother, Richard.

Charpes H. Geppert, MD, 57, of Madison, died June 28, 1989, in Madison. Born Jan 29, 1932, in Vermillion, SD, Dr Geppert graduated from the Washington University Medical School, St Louis, Mo, and completed his residency at University of Minnesota Hospitals, Minneapolis. He served in the US Army from 1960 to 1962. A pediatrician, Dr Geppert had been on the medical staff at the Dean Medical Center, in Madison, for 27 years. He was a member of the American Academy of Pediatrics—Wisconsin Chapter, American Academy of Pediatrics, the Dane County Medical Society, the SMS, and the AMA. Surviving are his widow, Mary; two sons, John, of Madison; Jeff, of Cambridge, Mass; and two daughters, Amy Ross, of Fairbanks, Alaska, and Beth Longtine, of Madison; their spouses, John Ross, Chuck Longtine, and Cathy Torresani, and five grandchildren.

Healthwatch brochures available again

The use of smokeless tobacco is a growing health hazard in Wisconsin, especially among adolescents, according to the Wisconsin Department of Health and Social Services. A new brochure that discusses the problem in an easy-to-read question-and-answer format is now available from the SMS Division of Communications at a cost of $.10 each; a free sample will be sent on request. A brochure on how to spot malignant melanoma is also available. Both pamphlets are suitable for display in physician's waiting rooms. For more information, contact the SMS Division of Communications at 1-800-362-9080 or 608-257-6781.

AMA Awards

The Wisconsin physicians listed below recently earned AMA Physician's Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

April 1989

Ackell, Peter H., Appleton
*Arvold, David S., Shawano
*Bruckman, James E., Milwaukee
*Burg, Edward A., Milwaukee
Cramer, Ralph, West Allis
*Davis, Donald P., Milwaukee
*Harms, Ronald L., Shawano
*Jeffries, Donald A., Shawano
*Laing, Robert E., Racine
*Larson, David L., Milwaukee
*McCormick, Michael R., Waukesha
*Rankin, James J., Brookfield
*Sanger, James R., Milwaukee
*Shaffer, Robert D., Racine
*Vander Woude, Sherwood W., Green Bay
*Williams, Alan L., Wauwatosa

May 1989

*Ambelang, Thomas M., Sheboygan
*Bock, Harvey M., Milwaukee
*Brodkey, Frank D., Janesville
*Cleveland, David A., Marshfield
*Collins, Janice K., Milwaukee
*Drury, Colin J., New Richmond
*Esswein, James L., Chetek
*Farah, Kathleen S., Baldwin
*George, Ayad M., Milwaukee
*Gottlieb, Viktor, Marshfield
*Grotenhuis, Paul W., Rhinelander
*Hammer, Roland M., River Falls
*Han, Paul Z., Wausau
*Herrell, Daniel W., Menomonee Falls
*Holden, Richard C., Watertown
*Hsieh, Suping, Milwaukee
*Hughes, Jack L., Wauwatosa
*Janssen, Martin L., Friendship
*Johnson, Donald D., Stevens Point
*Kinast-Porter, Susan, Monroe
*Kramer, Andrew J., Milwaukee
*Lagus, Arne T., St Croix Falls
*Leering, Hendrik, Lake Mills
*Lingen, Thomas A., Cumberland
*Luetzow, Thomas J., Larsen
*Marlett, Myron M., Green Bay
*Maurer, William J., Marshfield
*Mc Canless, Michael V., Cumberland
*Mc Donald, Donald H., Winneconne
*Mc Millen, Milton R., La Crosse
Moede, James G., Reedsburg
*Neal, Bruce M., Middleton
*Noreuil, Jill O., Shorewood
*Palmer, Elissa Organek, Madison
*Peterson, Robert L., Waupaca
*Petty, Ralph D., Shawano
*Przlomski, Andrew T., Kenosha
*Rammer, Martin A., Sheboygan
*Rizzo, Michael J., Kenosha
Salaymeh, Basil M., Wauwatosa
*Scheckler, William E., Madison
*Schwind, Joseph P., Milwaukee
*Stineman, William F., Franklin
*Turke, Terry L., Watertown
*Vergara, Victorino G., Reedsburg
*Weber, Joseph W., New London
*Woeste, David M., River Falls
*Zirneskie, Joseph D., Middleton

June 1989

Agoncillo, Jose R., West Allis
*Amos, David E., Milwaukee
*Banerjee, Tarit K., Marshfield
*Belknap, Mark K., Ashland
*Boehm, Frederick J., Stevens Point
*Bolger, John T., Waukesha
*Brink, Bruce E., Marshfield
Carrell, Kenneth R., Stanley
Carroll, Michael P., Kenosha
*Chang, Sheng-Hsiung, Marshfield
*Driscoll, Thomas P., Milwaukee
*Goodrich, Thomas E., Kenosha
*Hansen, Raymond L., Marshfield
*Hathaway, Bruce N., Marshfield
*Jenk, Lloyd F., Milwaukee
*Johnson, Sidney E., Marshfield
*Kanemoto, Henry H., Wausau
*Knavel, James L., Lake Geneva
Laabs, John E., Neenah
*Luckey, William T., River Hills
*Mehr, Michael P., Marshfield
*Melski, John W., Marshfield
*Mulligan, Gerald M., Marshfield
Novak, Dorothy A., Hayward
*Opitz, James C., Marshfield
*Qureshi, Mehboob M., Monroe
*Sharon, Mark W., Plymouth
*Sipes, Don R., Green Bay
*Swanson, Brian C., Superior
*Timmermans, Peter W., Waupun
*Turney, Susan K., Marshfield
*Ullrich, Peter H., Eau Claire
*Ulmer, Richard H., Marshfield
*Weinlander, Chris M., Appleton

July 1989

*Annesley, William H., Wauwatosa
*Avecilla, Constante S., Marshfield
*Boulet, Wilbur J., Marshfield
*Caine, Marc R., Milwaukee
*Chancey, Robert L., Beloit
*Charipar, Ron M., Ladysmith
*Cooper, Ronald J., Lake Tomahawk
*Cornelius, Peter L., Jackson
*Damiani, Kathleen K., Racine
Foerster, Harry R., Milwaukee
Fritsch, Michael K., Sun Prairie
*Govin, Gerald G., Milwaukee
*Groth, Boyd J., Mosinee
Harbin, Adie D., La Crosse
*Jimenez, Miguel A., Shawano
*Johnstone, Michael F., Milwaukee
Josefski, Mark A., Madison
*Kunkel, James A., Marshfield
*Larson, David L., Wausau
*Lewan, Richard B., Waukesha
*Liss, Paul L., Marshfield
*Mc Donough, John W., Wisconsin Rapids
*Nelsen, Paul D., Green Lake
*Poll, Marvin, Milwaukee
*Robertson, Russell G., Milwaukee
*Sautter, Richard D., Marshfield
Sennett, Louis W., Milwaukee
*Seno, Louis S., Milwaukee
Siepmann, James P., Oshkosh
*Smith, Martin J., La Crosse
*Stiehl, Charles W., Milwaukee
Storm, Frederick K., Middleton
Tuttle, Thomas F., Stanley
*Twiggs, John T., Marshfield
*Wineman, Bruce A., Marshfield

Wisconsin. Opportunities for BC/BE family practice physicians in Plymouth, a vibrant community 50 miles north of Milwaukee. Consider existing practices of one, two, or four physicians as they expand to meet the needs of a growing community. Four-season climate in an area featuring good schools, pleasant people, strong economic development, low unemployment and a good lifestyle. Compensation package includes salary guarantee, malpractice insurance, health insurance, relocation expenses and more. Contact Jim Williams, Vice President, Valley View Medical Center, 901 Reed St, Plymouth, WI 53073. Call collect 414-893-1771. p9–10/89

Family practice. Four-physician group seeks fifth MD (BC/BE) to join growing practice located within one hour of Madison and Milwaukee. Full benefits, first-year salary guarantee. One hundred and two bed community hospital located within one block from office. Send CV to Betty J. Parish, Clinic Mgr, PO Box 49, Watertown, WI 53094; ph 414-261-5204. 9–11/89

Wisconsin. Opportunity for BC/BE general surgeon to associate with busy BC surgeon in general, vascular and endoscopic practice serving two hospitals. Practice located in Plymouth, a vibrant community located 50 miles north of Milwaukee. Four-season climate in an area featuring good schools, pleasant people, strong economic development, low unemployment and a good lifestyle. Salary guarantee and fringe benefits with early partnership. Contact Jim Williams, Vice President, Valley View Medical Center, 901 Reed St, Plymouth, WI 53073. Call collect 414-893-1771. p9–10/89

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

RATES: 50¢ per word, with a minimum charge of $20.00 per ad. BOXED AD RATES: $25.00 per column inch. *All ads must be prepaid.*

DEADLINE: Copy must be received by the 1st of the month preceding month of issue; *eg,* copy for the August issue is due July 1. Send copy to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

Family practice (BC/BE). Excellent opportunity to join a busy and progressive, 5-physician family practice group in south central Wisconsin. In addition to the growing city of 15,000 being located on a lake in an excellent recreational area it also has its own full array of cultural events. Nearby metropolitan areas include Madison (50 min) and Milwaukee (70 min). Excellent medical community with modern 100-bed hospital, full-time ER and ready access to most subspecialties. Guaranteed first year salary with incentive bonus and opportunity for ownership after one year. Excellent fringe benefits include moving expense, insurance, CME, etc. Contact Chad Burchardt, Business Manager, Medical Associates of Beaver Dam SC, 1200 N Center St, Beaver Dam, WI 53916; ph 414-887-7101. p7–9/89

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

We need three forward-looking physicians (general surgeon, orthopedic surgeon, OB/GYN) to join our growing 16-person group located in the beautiful upper St Croix River Valley. Just 40 minutes from the fine culture of the Twin Cities, St Croix Falls, Wisconsin, offers outdoor recreation, nationally acclaimed schools, moderate home prices, and friendly neighbors. Have the best of both worlds! Contact: Tom Hinck, MD, at 715-483-3221 or Jim Bigogno, Administrator, at 800-642-1336. p8–9/89

Internist—BC/BE. Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs or subspecialists in internal medicine. Send CVs to Michael Sergi, MD, 14 North Main St, Fond du Lac, WI 54935. p8–12/89;1/90

Emergency room position just south of Milwaukee. Group covers two ER and walk-in. Competitive salary and full fringes. Contact: J. Linstroth, MD, 414-835-7761. 8tfn/89

Orthopedic surgeons, Wisconsin. Marshfield Clinic, a multi-specialty group practice with over 300 physicians, is seeking BE/BC orthopedic surgeons to join expanding regional centers. Positions available in two locations; one in northwestern Wisconsin within 90 miles of Minneapolis and one, a group practice of 25 physicians, in north central Wisconsin approximately 1½ hours from Lake Superior. Communities offer exceptional recreational, cultural, and educational opportunities. Compensation package with starting salary up to $149,100 combined with outstanding fringe benefit package totals in excess of $200,000. There is no buy-in or start-up expense. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Ave, Marshfield, WI 54449 or call collect at 715-387-5376. 9/89

General internist. Marshfield Clinic, a multi-specialty group practice with over 300 physicians, is seeking BE/BC general internists to join expanding regional centers. Practice opportunities range in size from multi-specialty groups of 11 to 25. Positions available in three locations. One in northwestern Wisconsin, 90 miles from Minneapolis; one in north central Wisconsin in close proximity to the U P of Michigan and Lake Superior, and one in central Wisconsin within 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe benefit package is outstanding. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Ave, Marshfield, WI 54449 or call collect 715-387-5376. 9/89

Family practice physician wanted to join non-profit community health center program. Modern facility in rural community in western Upper Peninsula of Michigan. Competitive salary, excellent benefits, loan repayment available. Immediate opening. Send curriculum vitae to Donna Jaksic, Executive Director, Upper Peninsula Association of Rural Health Services, 220 West Washington, Suite 430, Marquette, MI 49855. 9/89

Aspen Medical Group, an independent, multi-specialty group with eight clinic locations in the Minneapolis and Saint Paul metropolitan area, seeks BC/BE associates in family practice, internal medicine, pediatrics, obstetrics/gynecology, orthopedic surgery, and urgent care. Excellent benefits, reasonable call and clinic responsibilities, highly competitive income potential. Contact: Maureen Reed, MD, Chief of Staff, Aspen Medical Group, 1020 Bandana Blvd, West, Suite 100, Saint Paul, MN 55108; ph 612-641-7178. 7–9/89

Physicians Exchange

continued

Pediatrician, Ob/Gyn, psychiatrist, family practitioner, general surgeon. Growing 16-physician, multi-specialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity after one year. Come grow with us! Contact John T. Henningsen, MD, Indianhead Medical Group, Ltd, 1020 Lakeshore Dr, Rice Lake, WI 54868; ph 715-234-9031. 8–10/89

Family practitioner to associate with a highly successful two-physician (one physician near retirement) rural family health center with an excellent support staff and unlimited potential. Complete fee-for-service practice with excellent hospitals and specialty support only minutes away. Guaranteed salary, incentives and benefits tailored to fit your needs. Located 15 minutes from a major metropolitan area and 30 minutes from the joys of Door County. Interested physicians please contact: J.C. Majeski, Clinic Mgr, Luxemburg Medical Clinic, PO Box C, Luxemburg, WI 54217; 414-845-2351. p7–9/89

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Black River Falls, WI
An excellent opportunity exists for two BC/BE family practitioners to join a quality nine-physician, multi-specialty group as a result of increased demand for services. Black River Falls is the gateway to beautiful Indianhead vacation country. The clinic provides medical technology equal to that in urban settings in a small community where we treat our patients like neighbors, not numbers. Call is equally shared with first call weekend coverage provided by the hospital. We offer a small-town friendly atmosphere with excellent compensation guaranteed and time off to enjoy your family and hobbies. Metropolitan areas are easily accessible within one hour via interstate highway. Send CV or contact John M. Drace, Administrator, 610 W Adams St, Black River Falls, WI 54615; 715-284-4311. 8–10/89

Orthopedics, internal medicine. A progressive 126-bed, two-hospital system seeking the above specialties to establish practices in the Iron Mountain area of Michigan's beautiful upper peninsula. Must be board eligible or certified. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO_2 laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4500. 8–9/89

Student health. Opening for primary care internist or family physician available immediately. Accredited facility provides medical services for 18,000 students. Full-time 11 month position. Competitive salary/benefit package and 40 hour week. Illinois license and board eligible/certified. Search continued until position filled. Contact Glenn Weiss, MD, Student Health Service, Illinois State University, Normal, Ill 61761, 309-438-8655. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer. 7–9/89

Family practitioner to join three physician group in Lake Mills on Interstate 94 and beautiful Rock Lake in southern Wisconsin. Resort area. Competitive salary and fringe benefits. Contact H. Leering, MD, 120 E Oak St, Lake Mills, WI 53551; ph 414-648-2391. p6–10/89

Northern Wisconsin
Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

GREAT LAKES — OB-GYN / Internal Medicine / Gastroenterology / Family Practice — Attractive opportunities in *Wisconsin, Indiana, and Michigan* for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions at 1-800-243-4353 (in Milwaukee call 243-9500).

Strelcheck & Associates, Inc.
12724 N. Maplecrest Lane
Mequon, WI 53092

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Nephrologist. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 7tfn/89

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multi-specialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Stuart R. Lancer, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. c4;p5–7;8–10/89

For sale. S1. used Midmark III electric table less than 20% of cost—you pick up. Ph 319-556-3646, Monday—Friday. 9–11/89

Beloit Clinic, SC, an expanding multi-specialty group in southern Wisconsin college town is seeking a physiatrist and orthopaedic surgeon for its main facility, as well as a second family practitioner for a satellite location. Guaranteed salary with incentive plus excellent fringe benefits. Send CV to J. F. Ruethling, Administrator, 1905 Huebbe Pkwy, Beloit, WI 53511; ph 608-364-2200. 7–9/89

NEW PHYSICIANS
FOR WISCONSIN
is seeking

- Family Physicians
- Pediatricians
- Orthopedic Surgeons
- Internists
- General Surgeons

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7–12/89;1–6/90

Physicians Exchange

continued

Family practice opportunities in a group setting. Located in a family-oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, president & CEO, Clintonville Community Hospital, 35 N Anne St, Clintonville, WI 54929; ph 715-823-3121. p7-12/89

Rheumatologist—the Racine Medical Clinic, a 34-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

For sale. Orthopedic journals and books. Journal of Bone and Joint Surgery (some bound), Vol 28–70, $500; Clinical Orthopedics, Vol 47–237, $500; Orthopedic Clinics of North America, Vol 1–19, $300; Instructional Course, Vol 11–37, $300; miscellaneous books. Contact JD Spankus, MD, 414-964-9022. 9/89

Practice for sale. Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, WI 53122. 8tfn/89

Pediatrics. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 7tfn/89

Family practice. Thirty-four physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Physicians needed full- or part-time to perform light physicals. Milwaukee area. Professional liability provided. Phone 414/344-2100, Ms Jenkins. 10tfn/84

Northern Wisconsin

Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Fellowship in addictionology

Fellowship offered in addictionology for MDs orDOs interested in diagnosis and treatment of alcohol and drug abuse problems. Fellow will be involved in all aspects of alcohol and clinical dependency rehabilitation to include:

Primary patient evaluation
Diagnosis treatment protocols
Daily rounds
Counseling
Psychiatric evaluation
Group therapy
Staffing
Seminars

Stipend $27,000. Interested candidates please contact Diane Chase, De Paul Hospital, 4143 S 13 St, Milwaukee, WI 53221. p8-989

BC/BE Internists and family practitioners

A balanced lifestyle, competitive income and freedom to practice quality medicine. Opportunities to join a unique primary care practice in the Chicago/St. Louis areas. Excellent financial package includes income guarantee, bonus incentive and potential for profit sharing. No billing or HMO headaches.

Send CV to:
Lori Jones
MedFirst Medical Management, Inc.
5515 N. Cumberland Ave
Suite 808
Chicago, IL 60656
or call **collect:**
312-774-3443

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Medical Meetings—Continuing Medical Education

October 12–13, 1989: Wisconsin ACEP/ENA Fall Symposium, Landmark Resort, Egg Harbor. Topics: "Environmental Emergencies." Info: Karen Teske-Osborne, Executive Director, 999 S Park St, Madison, WI 53715. Tel: 608-251-4911. g9/89

October 13–15, 1989: Wisconsin Radiological Society Annual Meeting, Concourse Hotel, Madison. g2tfn/89

November 2, 1989: 27th Annual Teen Health Workshop, Oshkosh Convention Center, Oshkosh. 9–10/89

November 26–December 1, 1989 (Illinois): 75th Scientific Assembly and Annual Meeting of the Radiological Society of North America, at McCormick Place in Chicago. 7–10/89

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

OTHER MEETINGS in the United States are published in the first issue of each month of the *Journal of the American Medical Association.*

Advertisers

Air Force Medicine 40
Army Reserve Medicine 23
Arrowhead Lodge 27
Bell Atlantic TriCon 32
City of Milwaukee 28
Eli Lilly & Co 34
Heartland Seminars 49
HMO of Wisconsin 3
Medical College of Wisconsin 37
Medical Protective Company 39
Milwaukee AIDS Project 24
Milwaukee Psychiatric Hospital 31
MONY Financial Services 29
Palisades Pharmaceuticals 49
PBBS Equipment Corp. 48
Physicians Insurance Company of Wisconsin 41
Roche Laboratories . . . . . IBC,BC
Shearson, Lehman & Hutton . . . . . IFC
S&L Signal Company 28
SMS Services 43
StrategiCare 25
United States Army Reserve 33

PATHOPHYSIOLOGY OF CORONARY ARTERY DISEASE 1989: AN UPDATE, 1989 American Heart Association of Wisconsin Annual Meeting and Scientific Sessions

Friday, November 3, 1989, Hyatt Regency, Milwaukee
Scientific Sessions—8:00 am to 12:00 noon
Annual Meeting and Keynote Lecture—12:30 to 2:00 pm

Scientific Sessions Presentations:
"Pathogenesis and Regression of Atherosclerosis: Implications for Primary and Secondary Prevention"
Thomas Pearson, MD

"Pathophysiology of Acute Ischemic Syndrome" (Unstable angina and Myocardial Infarction)
Valentin Fuster, MD

"Reperfusion Therapy in Myocardial Infarction: An Update" and Report of the Seattle Pre-Hospital Experience
J. Ward Kennedy, MD

"Pathophysiology of CPR: Theoretical and Practical Implications"
Myron Weisfeldt, MD, President, American Heart Association
Dr Weisfeldt also will present the Malcolm F. Rogers, MD, Memorial Lecture

CEU and CME credits

To register, or for additional information, contact: American Heart Association of Wisconsin, 795 N Van Buren St, Milwaukee, WI 53202; ph 414-271-9999 or 800-242-9236. p9/89

CONTINUING MEDICAL EDUCATION School of Medicine, University of Wisconsin Medical School, Madison, Wisconsin—schedule of conferences and workshops, September 1989–February 1990

1989
Sept 15: Podiatry Conference, The InnTowner, Madison

Sept 15–16: *Wisconsin-Upper Michigan Society of Ophthalmology, The Edgewater, Madison

Sept 20–22: *Nuclear Cardiology, The Hyatt, Milwaukee

Sept 21–23: *Electrophysiology, Marriott Copley Place, Boston

Sept 22: *Management of Endstage Cardiac and Pulmonary Diseases, The Concourse, Madison

Sept 29–30: *Neurology Conference: Management of Neuromuscular Disorders, The Inn on the Park, Madison

Oct 6–7: *Current concepts in Ophthalmic Plastic Surgery: Symposium and Practical Course, The Wisconsin Center, Madison

Oct 12: *Injured Workers, Holiday Inn East Towne, Madison

Oct 12–13: *Organ Procurement and Transplantation Symposium, Sentry World, Stevens Point

Oct 12–13: *Allergy and Clinical Immunology, University of Wisconsin Hospital and Clinics, Madison

Oct 13–14: *Update on the Care and Treatment for the Medically Compromised Patient: A Symposium for Dentists and Physicians, University of Wisconsin Hospital and Clinics, Madison

Oct 19: Emergency Procedures for Dental Office Staff, University of Wisconsin Hospital and Clinics, Madison

Oct 20–21: *Seminars in Pediatrics, University of Wisconsin Hospital and Clinics, Madison

Oct 26: *Diagnosis and Treatment of Thrombosis/Thromboembotic Disorders, The Edgewater, Madison

Oct 30–31: Pediatric Respiratory Care, Holiday Inn East Towne, Madison

Oct 31–Nov 1: Coordination and Treatment of Drug and Alcohol Clients, The InnTowner, Madison

Nov 3: *Plastic Surgery in Primary Care, University of Wisconsin Hospital and Clinics, Madison

Nov 10: *Urology Conference: Alternatives in the Management of Benign Prostatic Hyperplasia, The Edgewater, Madison

Nov 16–18: *Infectious Disease Update, The Inn on the Park, Madison

Nov 17–19: Introduction to Neuro-developmental Treatment, Memorial Union, Madison

Dec 8–9: *Pain Conference, University of Wisconsin Hospital and Clinics, Madison

Dec 26–29: *Clinical Cardiology, Marriott World Center, Orlando, FL

1990
Jan 28–31: *New Therapeutics, Telemark Lodge, Cable

Feb 24–25: *Orthopedics in Primary Care, The Edgewater, Madison

*Conferences qualify for AMA Category I credit.

For further information contact: Cathy Means, Program Coordinator, Continuing Medical Education, 2715 Marshall Court, Madison, WI (608-263-6637) 9/89

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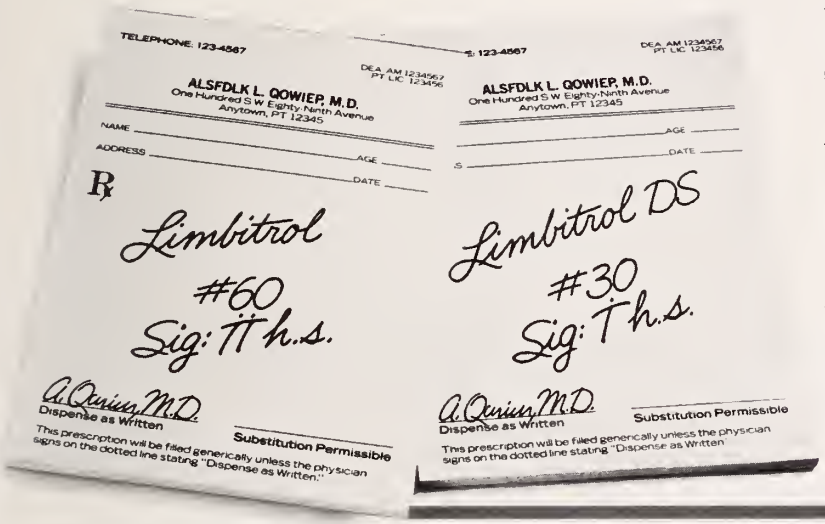
- First-week improvement in somatic symptoms[1]
- 50% greater improvement with Limbitrol in the first week than with amitriptyline alone[2]



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Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Feighner JP, *et al: Psychopharmacology 61:*217-225, Mar 22, 1979.

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Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants; concomitant use with MAOIs or within 14 days of monoamine oxidase inhibitors (then initiate cautiously, gradually increasing dosage until optimal response is achieved); during acute recovery phase following myocardial infarction.

Warnings: Use with caution in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur when used with anticholinergics. Closely supervise cardiovascular patients. Arrhythmias, sinus tachycardia, prolongation of conduction time, myocardial infarction and stroke reported with tricyclic antidepressants, especially in high doses. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (*e.g.,* operating machinery, driving).

Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations. Consider possibility of pregnancy when instituting therapy.**

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: Use cautiously in patients with a history of seizures, in hyperthyroid patients, those on thyroid medication, patients with impaired renal or hepatic function. Because of suicidal ideation in depressed patients, do not permit easy access to large quantities of drug. Periodic liver function tests and blood counts recommended during prolonged treatment. Amitriptyline may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady-state concentrations of the tricyclic drugs. Use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Should not be taken during the nursing period or by children under 12. In elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.

Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

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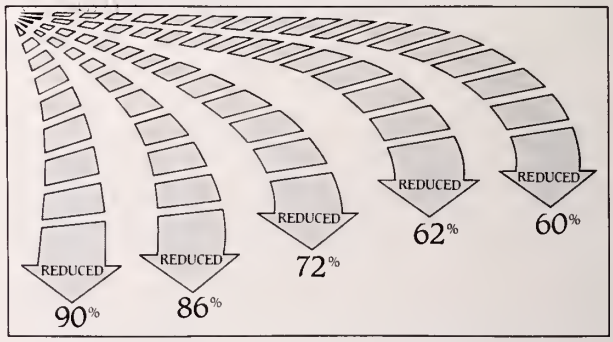

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October 1989 Vol. 88 No. 10

Opinions

3 *President's page*
Fighting mandatory assignment: 'Just the facts, Ma'am'
by William L. Treacy, MD, Milwaukee

4 *Secretary's report*
The time to act is now
by Thomas L. Adams, Madison

6 *Editorials*
The 80-hour work week and rural health care
by Richard D. Sautter, MD, *medical editor*, Marshfield

8 Toward a better practice of medicine
by Kenneth I. Gold, MD, Beloit

Scientific

13 The effects of lead in Milwaukee's water
by Thomas Schlenker, MD, Milwaukee

16 Knowledge of AIDS among health care students
by Bonnie J. Tesch, MD, Deborah E. Simpson, PhD, and Barbara D. Kirby, MD, Milwaukee

19 Thyroid needle aspiration in a community hospital
by James W. Findling, MD, Joseph L. Shaker, MD, and Paula R. Larson, MD, Milwaukee

23 *Student writing contest winner*
Treating Tourette syndrome with haloperidol: Predictors of success
by Michael J. Schwabe, MS, and Richard J. Konkol, MD, PhD, Milwaukee

28 High school football injuries: Field conditions and other factors
by Bryan L. Andresen, MD, Martin D. Hoffman, MD, and Lane W. Barton, MD, Milwaukee

Socioeconomics

35 Understanding expenditure targets

35 Wisconsin's Birth and Development Outcome Monitoring Program
by Richard Aronson, MD, Dorthy Griebel, OTR, and James Cobb, PhD, Madison

38 Assembly committee holds hearing on durable power of attorney

38 *Public health*
Routine checkups among Wisconsin adults: 1987–1989
by Patrick L. Remington, MD, and Paula Lantz, MA, Madison

Organizational

43 Frank Urban, MD, elected to State Assembly

43 County society news

46 Physician briefs

54 Obituaries

Our cover: A detail from "Dr. William Beaumont's Waiting Room" by Jeff Craft. The mural is owned by the SMS Charitable, Educational and Scientific Foundation and hangs at the SMS headquarters in Madison. Prints of the mural can be purchased through the Foundation. Contact Jean Steele or Jim Paxton at 1-800-362-9080 or 608-257-6781. An order form can be found on page 56 of this issue of *WMJ*.

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Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

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President's page

Fighting mandatory assignment: 'Just the facts, Ma'am'

AT A RECENT PUBLIC HEARING on the mandated Medicare assignment bill, considered by the Legislature this past floor period, it was interesting to listen to and question our "opposition"—two senior groups and some individual Medicare recipients. It quickly became clear that seniors are feeling the effects of Medicare's broken promises. They need to be convinced that mandated assignment will not solve their Medicare problems.

In reviewing their complaints about Medicare, it became clear that they and we have far more areas of agreement than areas of disagreement. In discussing medical issues with our elderly patients, I think we need to let them know we are on their side and to point out the following:

- Medicare's out-of-pocket expenses, such as mandated deductibles and co-insurance, the large deductible for any admission to the hospital, medication costs, and the extra charges for the catastrophic bill, are genuine concerns, especially for seniors with low to moderate incomes. Mandated assignment would reduce these outlays by only 3%.
- Long-term nursing home care is a major concern of the elderly, and understandably so. Mandated assignment would have no effect on these expenses.
- The elderly are very much concerned about being "kicked out" of the hospital too soon because of DRGs. We are too—in fact, probably more so. This, too, would be left unaddressed by mandated Medicare assignment.
- The smaller the income of the elderly person, the greater the concern seemed to be, and this is entirely reasonable. A number of the elderly I talked to, however, were not even aware that if their incomes were within the lower third of all elderly, Medicare assignment was already assured by our PartnerCare program. PartnerCare enrollment has gained great momentum in the past few months, with better publicity and increased income levels for eligibility. Identification of entry level into PartnerCare and the Homestead income ceiling of $16,500 for an elderly couple, has also helped enrollment. The people who would gain with mandated assignment would be only wealthy senior citizens.

William L. Treacy, MD

The effort to obtain mandated Medicare assignment from our Legislature will persist, but the elderly who are knowledgeable about the Medicare problems and the details of PartnerCare, understand that mandated Medicare assignment will not solve their problems.

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Secretary's report

The time to act is now

THE LEGISLATURE RETURNED to Madison in early October to tackle a list of important issues that were on hold through the first eight months of the year while legislators created the state's biennial budget. The optimist in me looks for the same bipartisan effort on these issues as was applied to the budget process.

Two of these issues are of particular concern to the Society: 1) enactment of a $250,000 cap on non-economic damages in medical malpractice cases, along with changes in the state's joint and several liability standards, and 2) providing health insurance for those half-million of our fellow citizens who are now without.

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The first issue, tort reform, has been elusive and frustrating, yet it remains an absolute necessity for the continuing provision of high quality medical care in Wisconsin. We are used to describing this problem in statistics, but the suffering it inflicts is on the bodies of our families, our friends, and our fellow citizens. Too often those who suffer most are those who can sustain it least: the very old and the very young, the very ill and the very poor. The cold, hard numbers on soaring costs of care, falling numbers of medical school applicants, overcrowded office schedules, declining numbers of physicians in critical specialties, and ever-lengthening miles of travel for rural patients, should be enough to convince anyone that a crisis is at hand, yet the legislature still does not act.

The SMS has played by the rules, presented the facts, educated the public, lobbied the legislature, and lined up the support of the majority of its members. Meanwhile, the refusal of the leaders of the legislature to acknowledge the mounting crisis facing Wisconsin's health care system is incomprehensible. What is needed now is an all-out blitz by the physicians of Wisconsin to force our state legislators—particularly those in the majority party—to wrest this issue from the control of one or two of their colleagues who are inside the pocket of a special interest group.

If you have not yet called or written your legislator—and many of you have not—now is the time to correct that oversight.

Finding a way to provide private-sector health insurance for the majority of the half-million uninsured is nearly as important as tort reform. Chronic under-funding of the Medicare program by the Reagan and Bush administrations, acquiesced to by Congress, has seriously undermined

Thomas L. Adams

our ability to provide uncompensated care for the uninsured and the near-poor.

These uninsured are the working poor, struggling to provide for their families and to get ahead in life, but forced to gamble the physical and financial well-being of their families in a daily game of medical Russian Roulette played out within the confines of the country that provides the finest health care in the world.

We cannot—we must not—dump our uninsured citizens on another well-intentioned but inefficient program doomed by the bureaucracy of government. With Medicare and Medicaid, government can play a role in providing incentives, but the solution to the problem of the uninsured must be born of the private sector.

The SMS is a player in the current debate on what the uninsured package should contain. The outcome of that debate may have as significant an influence on the provision of health care in Wisconsin as the passage of tort reform.

I cannot stress enough: the time to act is now.

Alien HMOs are establishing satellite offices in communities farther and farther away from their central facilities, competing for patients. Often, doctors sign up with a whole fleet of alien HMOs, in an attempt to maximize their patient bases. And that may be an effective short-term strategy. But too many HMOs competing for the same turf may result in failure for many. The big questions are, which will survive—and why should you care?

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Editorials

The 80-hour work week and rural health care

THE PROPOSED LEGISLATION to limit interns and residents to an 80-hour work week has a number of flaws. These originate primarily from ignorance of the health care system and of the purposes the system serves. Interestingly, on-call hours are counted into the 80 hours—time during which interns and residents are allowed to sleep, sometimes even at their own home.

The legislators and the public at large should understand that internship and residency programs are a form of apprenticeship such as that which existed in the 1800s and, to a lesser degree, is still found today in certain specialized industrial and artistic fields. Today's programs are not as onerous as those of the past, of course. Still, the likeness of residents and interns to apprentices should be considered in evaluating the bill.

The resident-in-training is a fully qualified physician who could enter general practice but instead wishes to acquire certain special skills. To obtain these skills, an apprenticeship, or residency, is served to learn a specific discipline such as radiology, pathology, surgery or internal medicine.

Most residents are greatly attracted to the opportunities for learning found in large hospitals and clinics. These institutions have interesting teaching materials (patients) and huge work loads. The hours necessary to teach various residents, or apprentices, are variable. Who best recognizes the needs of a specific program or an apprentice if not the teacher? It would be tragic for the State to interfere with the learning process.

Many residents actually welcome the intensity of the learning experience. Circumstances even occur in which senior residents, most especially those in the surgical specialties, need almost to be forced to leave the hospital. This is the year in which the entire part of the clinical educational process is focused. These residents want as much practical experience as possible and for the most part pay little attention to work hours, as do many physicians in practice.

To be sure, there may be some residents who feel overworked, and, indeed, perhaps some are. There are also some who cannot stand up to the work pressures of certain disciplines.

Hearsay indicates that one motivating factor in the proposed legislation was the suicide of a young resident. There are a great many reasons for suicide, the most common one being depression. Overwork can cause depression, true, but depression serious enough to lead to suicide is quite unusual unless accompanied by some other psychological stress, i.e., feelings of inadequacy. As a group, physicians have a very high rate of suicide. Given this, it might logically follow that the legislature would propose a limited work week for the practicing physician.

With a legislated cap on work hours, many scenarios could conceivably appear. A surgeon in the midst of an operation working to his or her 80th hour would have to quit even though the procedure was not completed. He or she would otherwise be sanctioned by law. Similarly, a patient in the emergency room needing urgent attention because of massive bleeding might be unfortunate enough to be assigned a doctor who has completed his or her hours and must leave the hospital. Those examples are obviously anecdotal, but no more so than whatever so-called

Continued on page 8

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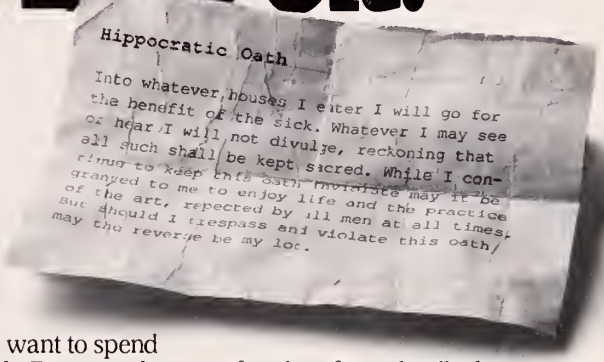

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Continued from page 6
evidence was used as the basis for the proposed legislation.

The effect upon teaching programs described illustrate what is probably the *most important* issue concerning the proposed legislation—the probable negative impact on the care available to patients in general. But, in my opinion, what legislators should be most concerned about, especially those from rural areas, is how the legislation would affect the delivery of health care in the individual communities they represent. Our representatives should be extremely cautious, for as a consequence of this legislation, the apprentices in question (fully licensed physicians) would be unable to serve some of the emergency rooms in small, rural hospitals they now willingly cover. This would have a devastating effect on the delivery of health care in those areas.

I remind all members of the Wisconsin legislature that ours is primarily a rural state. Accessibility to health care is considered a basic right. Were I to propose a bill such as the one under debate, I would be extremely frightened about what the voters in small communities might say and feel about the probable decrease in the availability of health care services in their community that would occur if the bill passed. This could indeed become an extremely important issue during the next election. Urban legislators supporting this bill should have their colleagues from the rural areas ask their constituents their views on the issue.

The proposed legislation is fallacious and should be defeated forthwith.

—Richard D. Sautter, MD
Medical editor

Toward a better practice of medicine

In my attempt to become a better advocate for my patients, I have thrown away less and less material as it covers my desk, particularly that which arrived from third-party carriers. Today, I opened the *Wisconsin Medicare Part B Newsletter* and learned what was medically necessary or, more specifically, not necessary.

First, I was reminded that to be medically necessary, an item of service had to be:

- consistent with the patient's symptoms or diagnosis of the illness or injury under treatment;
- safe and effective;
- necessary to treat or diagnose the symptoms, illness, or injury;
- generally accepted medical practice in the community;
- furnished for an appropriate duration or frequency for the patient's symptoms, diagnosis, or injury;
- furnished in an appropriate setting which provides for the patient's safety; and, moreover
- "not furnished primarily for the convenience of the patient, the attending physician, or others."

The communique went on to remind the reader that a major source of misunderstanding and distress was the distinction between services which are defined as not medically necessary and those which are not covered.

Again, as a practicing physician, I found "not medically necessary" to be the phrase of choice by Medicare Part B and an unnecessary source of anxiety for my patients.

The most interesting part of the newsletter was the plea for the physician to understand that the reviewer (unnamed rank and training) would begin with the assumption that there was a basic sequential analysis of the patient's problems, and I am quoting: "This is the same analysis and process which is taught in medical school. This approach starts with the history of the symptoms, the past medical history, the medications . . . With this background, the physician will order the services which are needed based on the list of differential diagnoses."

In my naivete, I thought that that was what I was doing for the past 25 years or more; that is, performing the best history and physical examination

Continued on page 10

Opinion policy

Opinions expressed in the Voice of the SMS section reflect the official policy of the State Medical Society of Wisconsin.

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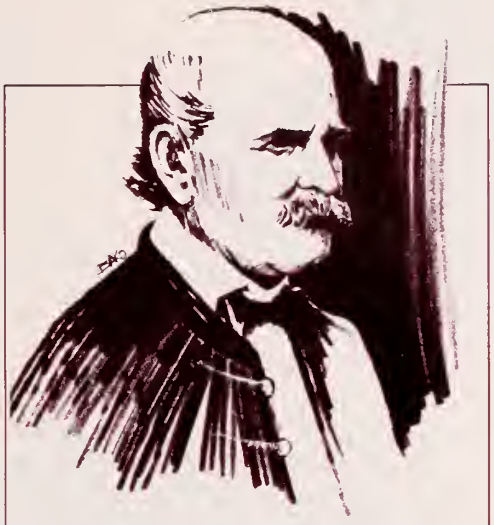

Ignaz Phillip Semmelweis (1818-1865) discovered that puerperal infection was reduced when surgeons disinfected their hands.

His findings, which he presented in an unacceptable fashion, were met with skepticism and rejection by the medical community. Semmelweis's sensitive nature crumbled under the ridicule and he eventually lost his mind.

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Continued from page 8
which I could do in each and every patient interaction, proceeding by choosing the appropriate diagnostic studies to help my patients return to health if they were ill or to keep them in the best physical condition possible, and proceeding through a time-honored hierarchy of choices and decisions to produce the best possible outcome in each patient.

I am gratified to have the diagnostic facilities available in 20th-century America in the State of Wisconsin and in my group, and I am further pleased that I am able to choose those which will best serve my patient. I am confounded and disturbed by the second- and third-guessing, not of my peers, to whom I will always listen, but of the unnamed reviewer. I will make a plea that if each of us returns a claim which is deemed not medically necessary for the rationale and background of the reviewer, that we might move toward a better practice of medicine, both for our patients and ourselves.
—Kenneth I. Gold, MD
Beloit

Editor's note: In correspondence from Ned Boston, director of Medicare administration, to Dr Richard Sautter, *WMJ* medical editor, it was noted that the state Medicare carrier, WPS, has recently hired Kay Jewell, MD, as its medical director and that Dr Jewell is the first level of review in Medicare Part B. WPS also maintains a network of board-certified specialists with whom Dr Jewell may consult on particular cases. Boston also noted that WPS and the SMS have initiated a Medicare policy committee to advise WPS on policy issues.

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The effects of lead in Milwaukee's water

Thomas Schlenker, MD, Milwaukee

Lead concentrations in household drinking water were matched with blood lead levels in 46 women of childbearing age (37 of whom were pregnant) who reside within the city of Milwaukee. The women represented a geographically diverse sample. Water lead concentrations ranged from less than 10μg/L (65% of all homes studied) to 160μg/L. None of the women tested had blood lead levels within the range most recently designated by the Centers for Disease Control (CDC) as "at risk" for the developing fetus (greater than or equal to 10μg/dL). Within the limits of this study, there was no biologically significant correlation between blood lead and drinking water lead levels, suggesting that household water in Milwaukee with first-draw lead concentrations above EPA standards, either proposed or current, may have little or no biological effect. *Wis Med J* 1989;88(10)13–15.

ALTHOUGH LEAD LEVELS in the environment have decreased significantly through the banning of lead-based paints and the widespread conversion to lead-free gasoline in motor vehicles, concerns about lead poisoning in children have increased rather than diminished. This is because researchers have associated ever lower blood lead concentrations with adverse effects on the developing fetus, infant and young child. Studies have shown subtle neurophysiological and developmental deficits in infants born with blood lead levels less than 25 μg/dL, the current definition of lead toxicity.[1,2] Delayed responses in central nervous system electro-physiology have been related to levels as low as 15μg/dL,[3] and there is speculative evidence that even levels of 10 to 15μg/dL may be harmful.[4] Therefore, it is reasonable to investigate even sources of low lead exposure in the environment, focussing on the most biologically sensitive population groups.

The US Environmental Protection Agency's (EPA) current standard for acceptable concentrations of lead in drinking water is 50μg/L or less. The EPA itself, however, has questioned this level and is currently considering lowering it to 10μg/L. The technology for reaching this level is available and is based on raising the pH level in municipal water to 8 or above; several pilot studies have been successfully completed across the United States.

The Milwaukee Water Works, using potassium hydroxide, was able to raise the pH level of its water from 7.6 to 8.3 for several months during the summer of 1988.[5]

Whether such a strategy would be feasible from a cost-benefit perspective must be based on data quantifying the human biological consequences of lead in water. Two European studies correlated blood and water lead levels, but they were undertaken in cities and rural areas with rather grossly contaminated water and may not be applicable to areas with better water quality.[6,7]

A study by Karch and Associates,[8] which was sponsored by the American Water Works Association, is highly critical of the EPA's proposal to lower the acceptable lead level, pointing to a lack of studies in this country that have quantified the water-blood lead level relationship. It states ". . . a more stringent drinking water standard for lead may give a false sense of 'protection' from drinking water lead when in reality blood lead levels are unlikely to be significantly altered as a result."[9]

Standards for water quality are controversial. Nonetheless, expectant

Dr Schlenker is special deputy commissioner of health for the City of Milwaukee. Reprint requests to: Thomas Schlenker, MD, MPH, Milwaukee Health Department, 841 N Broadway, Milwaukee, WI 53202; telephone:414-278-2900. Copyright 1989 by the State Medical Society of Wisconsin.

mothers and parents with small children may not be particularly reassured to know that the issue is being debated. Knowledge of local water quality is important, but not sufficient. The key question, as yet unanswered, is what biological effects, if any, do various concentrations of lead in household water have on human beings?

Methods and patients

From January to March of 1989, the Milwaukee Health Dept (MHD), through letters to all Milwaukee obstetricians and a series of media announcements, offered free home water lead testing to any pregnant woman living in the city. To participate, each woman was required to complete a brief questionnaire and to have her blood tested for lead, an indirect but accurate substitute for testing fetal blood.[7] Thirty-seven women completed the requirements for the study. In addition, nine women of childbearing age living in homes known to have high concentrations of lead in drinking water were recruited into the study, bringing the total number of subjects to 46. The study sample represented many different neighborhoods and all aldermanic districts.

Water samples were obtained directly from the faucet in each home by MHD sanitarians and, in all cases, were early morning first-draw specimens. Second samples were obtained after a two- to three-minute flush. All samples were processed at the MHD laboratory by the Delve's cup method using an atomic absorption spectrophotometer. Blood lead and hematocrit levels were obtained by the subject's private physician during a routine prenatal visit or by the MHD, and the results were reported promptly to both the patient and physician.

Results

Matched samples of blood and household water were obtained for all 46 women. Blood lead levels ranged from 1μg/dL to 10μg/dL, with an average of 5.2μg/dL. Maternal blood levels above 10 μg/dL are currently thought to pose health risks to the fetus. None of the women were severely anemic or had abnormally low hemoglobin levels, which may lower the concentration of lead. The average hematocrit value was 37.6%, with a range of 30% to 44%.

Fig—Household water lead and occupant's blood level.

In the drinking water, first-draw samples ranged from less than 10μg/L to 160μg/L. For those that were equal to or greater than 20μg/L (35% of total series), the average concentration was 36μg/L. In all cases, the samples obtained after a two- to three-minute flush were less than 10μg/L. Our largely self-selected sample seemed to be biased toward older homes. The average age of the houses was 57 years with a range of 10 to 104 years old.

Because no toxic levels were found, the risk questionnaires were not intensively analyzed. Nonetheless, some bits of data are informative. The practice of making soup, coffee, or infant formula from hot water directly from the tap was fairly widespread. Many in our sample, however, had acquired the habit of flushing out the faucet in the morning before obtaining drinking water.

Discussion

This study, which consisted of a random—although small—sample of pregnant women and women of childbearing age in Milwaukee, found no evidence of dangerous blood lead levels, even at the lowest levels thought to have an adverse effect on the human fetus. Even women living in households with lead concentrations in first-draw water above the EPA standard were free from excess blood lead. Within the limits of the sample, there was no biologically significant correlation between household water and blood lead levels (see Figure). This is perhaps because the first few liters of relatively contaminated water that flow from the faucets in some homes each morning are rather easily avoided. It is also noteworthy that the water from a majority of homes was below even the most stringent EPA standards.

European researchers have found a positive correlation between lead

levels in household drinking water and lead concentrations in blood. The water studied, however, had levels of up to 1500μg/L and one study's conclusion that "an increment of water lead concentration from 50μg/L to 500μg/L increases blood lead concentration in mother and in newborn by about 3μg/dL"[7] would be meaningful to few if any people living in Milwaukee.

Larger studies completed here have shown the quality of local water to be relatively good. Of more than 800 samples tested by the MHD and the Milwaukee Water Works in 1987 and 1988 only seven had lead levels above 200μg/L; one sample exceeded 400μg/L. Second-draw samples averaged 40μg/L, with a range of 10μg/L to 70μg/L.

The results of the current study, coupled with previous water quality surveys, should be comforting to persons concerned about the adverse effects of lead in water on the developing fetus. Likewise, obstetricians and family practitioners who care for pregnant women now have available a small body of local data on the issue.

A pregnant women may also expose herself inadvertently to environmental lead through paint removing —especially with dry sanding and heat guns—or hobbies that involve working with ceramic glazes or soldering. Occupational or recreational use of firearms is also quite hazardous, particularly when done within an enclosed space. The use of home remedies by Southeast Asian and Latin American immigrants is another potential source of lead.[10] Thus, at the same time that pregnant women are reassured about lead concentrations in water by their physicians, information about other sources of exposure could be made part of the routine history. Pediatricians may want to advise parents not to make infant formula with hot water from the faucet especially in the early mornings when the water has been stagnant in the pipes for several hours.[11]

While this paper has discussed low-level and relatively rare sources of lead contamination, it is essential for health professionals to focus on the a major source of lead poisoning and the largest at-risk group: lead-based paint and small children. Toddlers (6 months to 3 years old) who put paint chips or dirt mixed with paint and other debris into their mouths comprise the majority of the 230,000 children who are estimated to be poisoned by lead each year.[1] A multifaceted intervention is necessary to adequately address this serious problem; a key component should be the universal adoption of the American Academy of Pediatrics' recommendation to screen all preschool children for lead levels at least once between 9 and 15 months of age and to repeat the test at regular intervals for all children judged to be at risk.[12]

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Acknowledgment

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Knowledge of AIDS among health care students

Bonnie J. Tesch, MD, Deborah E. Simpson, PhD, and Barbara D. Kirby, MD, Milwaukee

To assess the level of understanding about AIDS among future health care professionals, we developed and administered a 31-item test covering five AIDS-related knowledge domains to selected undergraduate students, medical school applicants, medical students and pre-clinical nursing students. The percentage of correct answers ranged from 74% for questions about mechanisms of transmission to 59% for items related to testing and interpretation. Seventy-two percent of questions on clinical illness and disease were answered correctly. The number of questions answered correctly was a function of educational level. The students were generally knowledgeable about the risk factors related to sexual transmission, interpretation of the AIDS antibody test, and symptoms of AIDS. They were less informed about issues related to occupational acquisition of human immunodeficiency virus (HIV) and clinical details. Medical educators need to develop educational programs providing accurate and up-to-date knowledge about this disease. *Wis Med J* 1989;88(10)16–18.

As of Dec 31, 1988, 82,764 cases of AIDS in the United States have been reported to the Centers for Disease Control (CDC).[1] Current estimates predict that more than 270,000 cases will have occurred in this country by 1991[2]. It is therefore essential that future health-care professionals be knowledgeable about all aspects of the disease, be trained and prepared to care for patients with AIDS, and be aware of the risks and the precautions specific to health-care providers. Appropriate content and discussion need to be incorporated into medical school curricula.

Drs Tesch, Simpson, and Kirby are with the Medical College of Wisconsin. Dr Tesch is director of Student Health Services and an assistant clinical professor of medicine; Dr Simpson is director of Educational Services and an assistant professor of family medicine; and Dr Kirby is a former associate dean for academic affairs and is an associate professor of medicine. Reprint requests to: Bonnie J. Tesch, MD, PO Box 135, Milwaukee County Medical Complex, 8700 W Wisconsin Ave, Milwaukee, WI 53226; telephone: 414-257-8210. Copyright 1989 by the State Medical Society of Wisconsin.

Previous studies have assessed AIDS knowledge among high school students, university students, teachers, and physicians.[3-14] To our knowledge, no such study has been conducted among health professions students. To assess the level of AIDS knowledge among future health-care professionals, we developed and administered a survey to selected undergraduate students, medical school applicants, medical students, and pre-clinical nursing students.

Methods

A 31-item test containing multiple choice and true-false questions was developed to assess health-care students' knowledge about AIDS. Several questions from the National AIDS Awareness Test were included in the examination.[14] Five AIDS-related knowledge domains were assessed: epidemiology, risk factors, signs and symptoms of clinical illness, mechanisms of transmission, and testing and interpretation. Items included risk groups and behaviors, the need for patient consent to do human immunodeficiency virus (HIV) antibody testing, interpretations of the antibody test, features of clinical illness, and mechanisms of transmission.

The examination was administered between October 1987 and January 1988. The following six groups, all future health care providers, were asked to complete the questionnaire: 24 college students at the University of Wisconsin–Milwaukee in the first year of an accelerated three-year combined baccalaureate-medical doctor program (target MD), 140 applicants to the Medical College of Wisconsin at the time of interview, 184 first-year medical students (M-1s), 124 second-year medical students (M-2s), 161 third-year medical students (M-3s) at the Medical College of Wisconsin and 113 second-year (pre-clinical) nursing students at the University of Wisconsin–Milwaukee. Students voluntarily completed the questionnaire during scheduled class time, at the time of class registration, or during free time on interview days. Respondents were identified only by their cohort status.

At the time this test was administered, the AIDS instruction provided to students was variable. The M-1s had not yet had any lectures on AIDS in medical schools. The M-2s had approximately three hours of formal AIDS instruction (biostatistics, microbiology, and pathology). Although the M-3s had not had any additional structured AIDS education, AIDS was discussed during clinical conferences, and they cared for AIDS patients on hospital wards. The nursing students and the target MDs had not had any formal AIDS instruction in their respective programs prior to the administration of the exam.

Results

Of 914 questionnaires distributed, 746 were completed, for a response rate of 82%. Twenty-four target MDs (100% of those who received the survey), 140 medical school applicants (100%), 184 M-1s (92%), 124 M-2s (62%), 161 M-3s (81%), and 113 nurs-

ing students (90%) completed the assessment. Mean item difficulty across the six administrations was .65 and mean item discrimination was .25. Mean standard error of measurement was 2.24. Results by domain across groups indicated that the percentage of correct answers ranged from 74% for questions on the mechanisms of transmission to 59% for those on testing and interpretation. Seventy-two percent of the questions on risk factors, 65% of those on epidemiology, and 60% of the questions on clinical illness and disease were answered correctly by respondents.

An examination of the individual questions within domains revealed that students were generally aware of risk factors related to sexual transmission. More than 95% of all respondents knew that they could decrease their risk of acquiring AIDS by decreasing the number of sexual partners, being familiar with their partners' risk factors, and using condoms. More than 50% of the respondents over-estimated the risk to health-care workers from a needle stick or mucous membrane exposure to blood from a patient with HIV infection. By contrast, less than 50% of the respondents were aware of the need to use basic precautionary measures with all patients.

Less than 35% of the respondents correctly answered questions related to the chances of developing AIDS within five years of having a positive AIDS antibody test or the groups which should be routinely counseled and tested for the AIDS antibody. Yet respondents were well informed (80% correct responses) about the interpretation of the AIDS antibody test. Specifically, respondents knew that patients with a positive AIDS antibody test are assumed to be infectious and that patients with a negative AIDS antibody test may still have had an HIV exposure history. With respect to clinical illness, 94% of the respondents correctly answered the question about AIDS symptoms. Less than 50% correctly identified the types of human cells infected by the virus.

Analysis of variance was conducted to determine if the respondent groups differed significantly. In all five domains, highly significant differences were obtained ($P = .001$). F-values and the percentage of correct responses by domain and respondent group are reported in the Table. In general, the number of questions answered correctly was a function of respondents' educational levels (M-3s had more correct answers than M-2s, M-2s more than M-1s, and M-1s more than applicants). The target MDs and nursing students, groups which still must complete the majority of their undergraduate education, answered the fewest items correctly.

Conclusions

Otis R. Bowen, US secretary of Health and Human Services stated that "in the absence of a cure or a vaccine for AIDS, the only method for controlling the spread of the disease is to educate the American public about the ways to protect themselves from infection."[15] This also means training future health-care professionals to educate the public. Clearly, physicians and nurses need to be knowledgeable and well-informed about AIDS and its risks.

In the present study, the health professions students had a good general knowledge of AIDS, especially with regard to sexual transmission. Several questions concerning safe sexual practices from the National AIDS Awareness Test were modified for inclusion in our test. Thirty percent of the general public answered at least four of the five questions on safe sex correctly. More than 90% of our respondents correctly answered similar questions.

The health professions students were also more knowledgeable than university students. McDermott et al, in a study of AIDS knowledge among 161 university students, found that only 68% knew that indiscriminate sexual behavior increases the risk of contracting AIDS.[6] By contrast, in this study 98% of health-care students knew that heterosexuals with multiple sexual partners are at probable increased risk for AIDS. Our respondents, however, were not as well informed about the clinical details of the disease and issues related to the occupational acquisition of HIV. These students tended to over-estimate the risk of developing HIV infection following blood or mucous membrane exposure, and less than

Percentage of correct responses reported by student group and by knowledge domain

Knowledge domain	Target MD	Pre-clinical nurses	Medical school applicants	Medical students			F-value
				Year 1	Year 2	Year 3	
Epidemology	56%	57%	59%	63%	71%	76%	18.21*
Factors	73%	66%	72%	71%	74%	73%	3.22*
Clinical illness	47%	49%	55%	59%	69%	69%	30.91*
Transmission	70%	65%	72%	74%	76%	82%	15.19*
Testing & interp.	49%	51%	58%	60%	61%	65%	10.91*

*p = .01

half were aware of the need to use precautions in the care of all patients.

Clearly, health professions students are more knowledgeable about AIDS than the lay public with knowledge increasing as a function of level of training. A substantial misunderstanding persists among health professions students in the areas of clinical illness and occupational risks and precautions, however. Medical educators need to continue developing educational programs that provide accurate, up-to-date information to correct these misunderstandings if we are to ensure quality health care for patients with AIDS.

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Abstract

Spurious elevation of plasma immunoreactive adrenocorticotropic hormone in cyclic cushing's syndrome.

We studied a 40-year-old man with cyclic Cushing's syndrome who demonstrated abnormal high-dose dexamethasone suppression and metyrapone stimulation tests. These results, associated with persistent elevations of plasma adrenocorticotropic hormone (ACTH) levels, suggested ectopic secretion of ACTH. Surprisingly, an adrenal adenoma with atrophy of the contralateral adrenal gland was found at exploratory laparotomy. Subsequent ACTH determinations that extract ACTH from the plasma before assay suggested that the apparent increase in ACTH concentration in our routine assay was due to the presence of an interfering substance(s). We conclude that the diagnosis of Cushing's syndrome continues to depend on a battery of adrenal function tests and radiographic procedures and recommend that measurements of ACTH be performed only after extraction of ACTH from specimens.

Gary G. Wickus, PhD, Anthony S. Pagliara, MD†, and Robert H. Caplan, MD, Department of Laboratory Medicine (Dr Wickus) and Internal Medicine (Drs Pagliara and Caplan), Gundersen Clinic Ltd and La Crosse (Wis) Lutheran Hospital. (*Arch Pathol Lab Med.* 1989;113:797–799) †Deceased.

Thyroid needle aspiration in a community hospital

James W. Findling, MD, Joseph L. Shaker, MD, and Paula R. Larson, MD, Milwaukee

Fine needle aspiration of the thyroid has achieved increasing acceptance as a valuable diagnostic aid in the evaluation of nodular thyroid disease. It has been suggested, however, that this procedure should be performed only in major medical centers. We report our experience with thyroid needle aspiration in 400 consecutive patients seen in the ambulatory setting of a community hospital. Benign cytology was found in 80% of patients. Surgery was recommended in 51 patients (12.8%) with either suspicious or malignant cytology, and cancer was found in 31 (61%) of these patients. Nondiagnostic aspirates accounted for 7.2% of patients. Thyroid imaging failed to add anything to the diagnostic evaluation. Our results compare favorably to those from university centers and show that thyroid needle aspiration can be performed well in a community hospital setting. We believe that it should be the initial study in patients with nodular goiter. *Wis Med J* 1989;88(10)19–22.

THYROID NEEDLE ASPIRATION (TNA) has gained widespread acceptance as a reliable, cost-effective diagnostic tool for evaluating nodular thyroid disease.[1] Some investigators, however, have questioned the use of the procedure in community hospitals and have suggested that the procedure should be limited to major medical centers.[2] In this paper, we report our experience with fine needle aspiration of the thyroid in 400 consecutive patients with nodular goiter in an ambulatory setting of an urban community hospital. This report emphasizes the diagnostic utility and safety of the procedure and its superiority over imaging techniques of the thyroid.

Patients and methods

Fine needle aspiration biopsy of the thyroid was performed on 400 patients referred to the Endocrine-Diabetes Center at St Luke's Medical Center in Milwaukee from October 1982 to December 1988. St Luke's Medical Center is a large tertiary care community hospital. The patients had one or more nodules, and all patients studied over this time period are included in the study. Each patient's condition was initially evaluated by history, physical examination, and thyroid function tests. Many patients had undergone thyroid scintigraphy with I^{123} or ultrasound examination. Several patients, however, had no thyroid imaging studies prior to needle aspiration.

Thyroid needle aspiration was performed by one of two endocrinologists (JWF, JLS) both of whom were trained in medical centers with experience in this technique. Local anesthesia was applied in the majority of patients with a 1% xylocaine solution. A Cameco syringe holder was used with a 22-gauge needle. Three to six aspirates were obtained from each nodule and smeared on glass slides, which were immediately fixed with alcohol. Syringes were then flushed with alcohol, and a cell block was performed. All smears were stained by the Papanicolaou method. There were no complications in our patients.

Cytologic interpretation was performed by a single pathologist (PRL) who has extensive experience with thyroid cytopathology. Samples were reported with descriptive narrative rather than by class system. Aspirates were classified as follows:

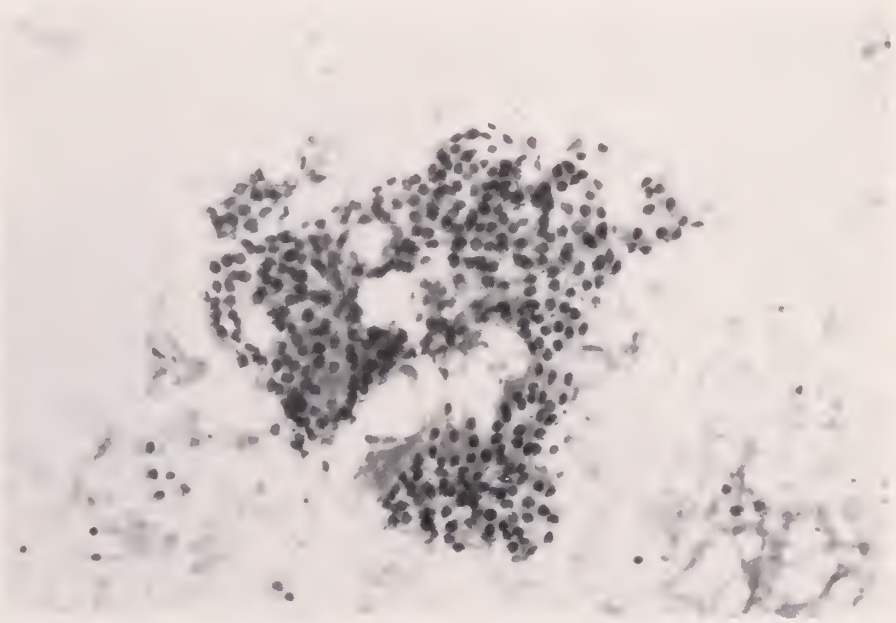

Fig. 1.—A benign colloid nodule with clusters of small, bland follicular cells admixed with colloid material.

The authors are with St. Luke's Medical Center in Milwaukee—Drs Findling and Shaker in the Endocrine-Diabetes Center and Dr Larson in the Department of Clinical Pathology. Reprint requests to: James W. Findling, MD, St Luke's Medical Center, 2901 W Kinnickinnic River Pkwy, Suite 503, Milwaukee, WI 53215. Copyright 1989 by the State Medical Society of Wisconsin.

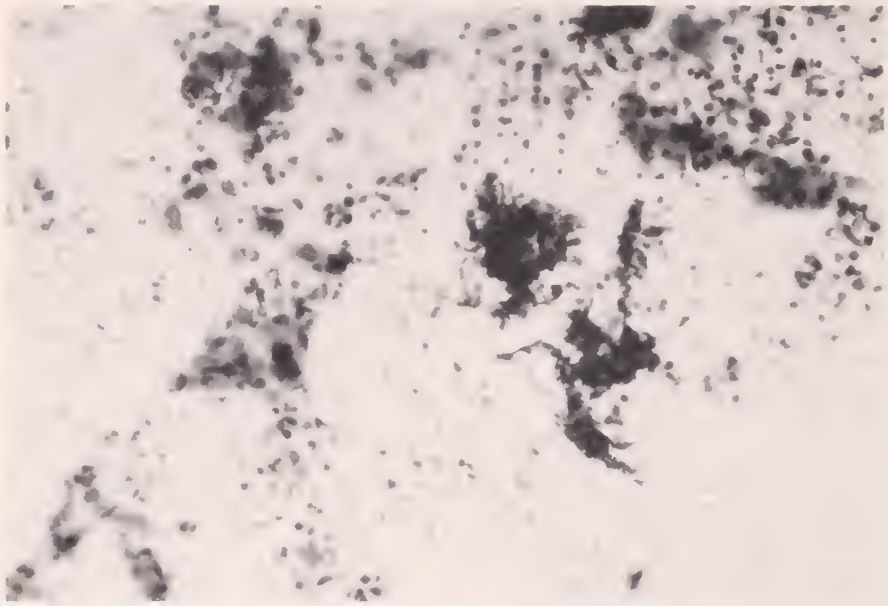

Fig. 2.—Aspirate from a patient with Hashimoto's thyroiditis showing large Hurthle cells in background of mononuclear cells, some of which have crush artifact.

- Non-diagnostic: aspirates contained few or no follicular cells (less than eight to ten well-preserved clusters on two slides).
- Benign colloid nodule (Fig 1): smears had normal cellularity composed of small regular follicular cells with generally abundant colloid material.
- Hashimoto's thyroiditis (Fig 2): aspirates were hypercellular with a background of lymphocytes and plasma cells, occasional germinal centers, lymphoid aggregates with crush artifact, Hurthle cells, and scant colloid.
- Papillary thyroid cancer (Fig 3): aspirates were hypercellular with sharply marginated papillary cell clusters, enlarged, pale and often grooved nuclei with small nucleoli, and intranuclear cytoplasmic inclusions. Other features encountered included monolayered sheets of neoplastic cells, psammoma bodies, scant colloid, and multi-nucleated giant cells.
- Suspicious (Fig 4): these smears were hypercellular and were composed of enlarged follicular cells. The cells often had abnormal cohesion and nucleoli, and colloid was scant. Aspirates that suggested papillary thyroid cancer but lacked all the above criteria also were classified here. Abundant Hurthle cells without features of Hashimoto's or benign colloid nodule were reported as suspicious for a Hurthle cell neoplasm.

Occasionally, aspirates with atypical cytology could not be subtyped with certainty and were designated simply "suspicious for neoplasm."

Results

The results of TNA in our patients are summarized in the Table. Of 400 patients, 353 were women and 47 were men. A benign aspirate was observed in 320 patients (80%); colloid nodule, 161 patients; Hashimoto's thyroiditis, 90 patients, and thyroid cyst, 69 patients. Suspicious cytology was apparent in 34 patients (8.5%), and 14 of these were found to have a malignancy, (nine papillary, two follicular, and one each Hurthle cell, medullary, and anaplastic). The remaining 20 patients were found to have benign lesions at surgery.

Needle aspiration cytology yielded findings consistent with cancer in 17 patients (4.3%), all of whom had a malignancy (15 papillary and one each metastatic and lymphoma). Twenty-nine aspirates (7.2%) were non-diagnostic.

Twenty-five patients with benign cytology underwent surgery for a variety of reasons. Two patients with upper airway obstruction had cytology consistent with Hashimoto's thyroiditis and were discovered to harbor thyroid lymphoma at surgery. The nodule aspirated in one of these patients actually was found to be Hashimoto's thyroiditis, and the thyroid lymphoma was located in

Fig. 3.—Low power view of papillary carcinoma with numerous three-dimensional, finger-like, papillary projections.

another part of the goiter. The remaining 23 patients were found to have a benign lesion at surgery.

Of 51 patients in whom surgery was recommended based on aspiration cytology (suspicious or cancer), 31 (61%) had thyroid cancer. Ten of these 31 patients had concomitant Hashimoto's thyroiditis. Clinically, in these 31 patients with cancer, nineteen had a solitary thyroid nodule, nine had a dominant nodule in a diffuse goiter, and three had multinodular goiters with multi-centric papillary thyroid cancer. Four patients with cancer were found to have partially cystic lesions.

Nineteen of 31 patients with cancer had thyroid scans. Seventeen of these scans demonstrated nonfunctioning or "cold" lesions, but two patients with proven cancer had reportedly "normal" thyroid scans. In none of our 400 patients was the thyroid scan helpful in management.

Follow-up evaluation of these patients has been provided by the referring physicians and, to date, we are unaware of any malignancies found in patients with benign, cystic, or non-diagnostic aspirates.

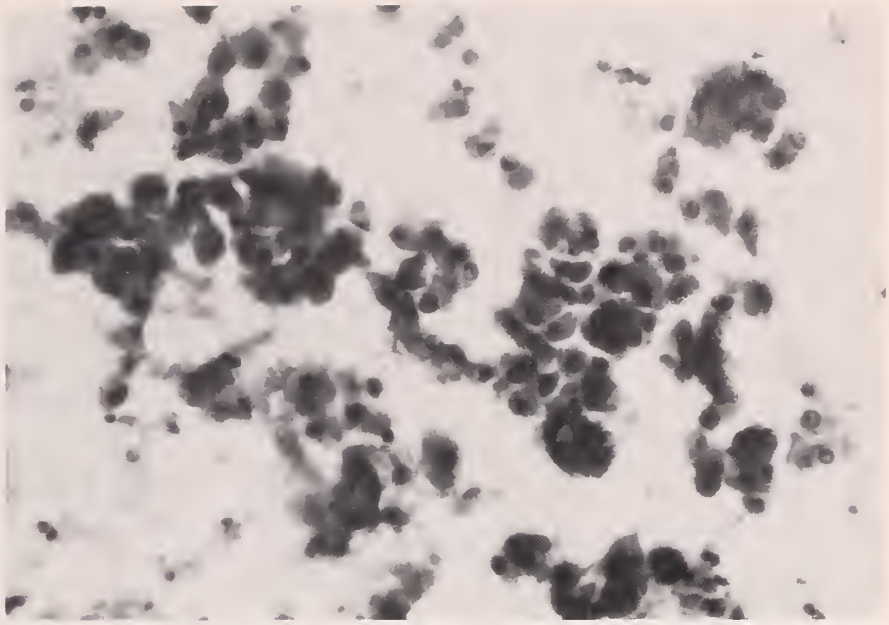

Fig. 4.—A cellular aspirate composed of large, eosinophilic cells suggesting a Hurthle cell neoplasm. Subsequent excision showed a Hurthle cell adenoma.

Discussion

This report describes the clinical utility of TNA in an ambulatory setting of a community hospital. The selection of patients with thyroid nodules for surgery on the basis of clinical findings and thyroid imaging results in a low yield of malignant disease.[3] TNA has clearly proven to be the most accurate and cost effective means of selecting patients for surgery.[4] Our results compare favorably to those from larger centers and confirm that the procedure can be successfully performed in any clinical setting where clinicians are well-trained in the technique and, more importantly, where there is an experienced cytopathologist.

A benign lesion was found in 80% of our patients; only 25 of these patients underwent surgery. Thyroid lymphoma was found in two patients with a cytologic diagnosis of Hashimoto's thyroiditis. Both of these patients had clinically evident malignancy with upper airway obstruction. No malignancy was identified in the other patients. Since only a few of our patients with benign cytology had surgery, our true false-negative rate is uncertain and, therefore, the overall diagnostic accuracy cannot be firmly established. Most series have shown a false-negative rate of 3% to 7% for this procedure.[6] Consequently, we suggest a repeat TNA within one year in all patients with a benign lesion. If two aspirates are benign, the diagnostic accuracy of the procedure in other series approaches 99%.[6] Nonetheless, long-term follow-up of these patients is prudent.

Needle aspiration cytology suggested a malignancy in 4.3% of our patients, and thyroid surgery confirmed this finding in all of them. The absence of false-positive diagnoses in our patients is similar to most series.[1]

In our patients, 8.5% had suspicious cytologic findings. Fourteen of 34 of these patients (41%) had a malignancy. Six had Hurthle cell neoplasms diagnosed with TNA, one had Hurthle cell carcinoma, and the others, benign adenomas (Fig 4). Differentiating benign from malignant follicular neoplasms represents the major problem with suspicious cytologic findings.[7] Therefore, we agree with the recommendation that all suspicious lesions be removed.

Non-diagnostic aspirates represented 7.2% of our series. Such patients are recommended to have either a repeat aspirate or close follow-up. The majority of non-diagnostic aspirates occurred in the first 100 patients, illustrating the importance of experience in obtaining satisfactory, easily interpretable specimens.[6]

The major impact of TNA in the evaluation of nodular thyroid disease has been the remarkable increase in the percentage cancer index (PCI) of patients in whom surgery is recommended. Based on TNA results, we suggested surgery in 51 patients of whom 31 had a malignancy (PCI = 61%). This compares favorably to series from large medical centers and is much greater than the 6% to 10% PCI reported from community hospitals.[2]

Although most of our patients with cancer were found to have a solitary nodule (distinct from normal thyroid) on clinical examination, several pa-

Results of thyroid needle aspiration in 400 patients	
Benign (n = 320) (80%)	
Colloid	161
Hashimoto's	90
Cyst	69
Suspicious (n = 34) (8.5%)	
Benign	20
Cancer	14
(Papillary 9, Follicular 2, Hurthle Cell 1, Medullary 1, Anaplastic 1)	
Cancer (n = 17) (4.3%)	
Papillary	15
Lymphoma	1
Metastatic	1
Non-diagnostic (n = 29) (7.2%)	

tients were found to have a diffuse thyroid enlargement with a dominant nodule, and three young patients actually had multi-nodular goiters due to papillary thyroid cancer. Consequently, we strongly recommend thyroid needle aspiration in all patients with dominant or solitary thyroid nodules and in young patients with multi-nodular goiter.[7]

Thyroid scintigraphy was performed in 19 of our 31 patients with cancer. Two scans were reported as "normal," and the other studies demonstrated cold or non-functioning nodules. Thyroid scanning was not helpful, however, in identifying any of these lesions and certainly was not useful in deciding the appropriateness of surgery. Although thyroid hormone suppression also has been accepted as another diagnostic modality in the evaluation of thyroid nodules, a recent study showed that thyroid hormone suppression is no better than placebo in these patients.[8]

In summary, this report confirms the clinical utility of fine needle aspiration in the evaluation of thyroid nodules. We have shown that this procedure can be done well in a community hospital setting with an excellent percentage cancer index. We believe it should be the initial study performed in patients with nodular goiter.

Acknowledgements
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Infant exercise

No data exist to suggest that exercise programs will advance skills or provide long-term benefits to normal infants, according to the American Academy of Pediatrics. While emphasizing that a stimulating environment is extremely important to an infant's development, the AAP recommends against structured exercise programs for infants.

The AAP issued a policy statement saying, in part, that "the possibility exists that adults may inadvertently exceed the infant's physical limitations by using structured exercise programs."

Medical school applications fall again

Although freshman enrollment in US medical schools in 1988–89 increased for the first time since 1981, the number of applicants continued to decline, according to *JAMA's 89th Annual Report on Medical Education in the United States.* Medical schools accepted one freshman student for every 1.6 applicants (a 64% acceptance rate), the lowest ratio of applicants to enrollment openings ever, according to the authors, who are with the AMA.

The study, which was published in *JAMA*, found that there were 16,781 first-year medical students in 1988–89, 95 more than in the previous year. Total enrollment, however, decreased by 592 students to 65,150. In addition there were 241 fewer graduates.

Student writing contest winner

Treating Tourette syndrome with haloperidol: Predictors of success

Michael J. Schwabe, MS, and Richard J. Konkol, MD, PhD
Milwaukee

The relationship between a medication course with haloperidol (Haldol) and family history for any type of tics was examined in a survey of 196 Tourette syndrome patients. Those with no family history of tics had a high probability of success with haloperidol therapy only. A positive family history increased the likelihood of medication changes after an initial trial of the drug. Surprisingly, we found that patient gender rather than family history was more likely to predict a successful treatment outcome with haloperidol. The data suggest a complex, multifactorial pathology for Tourette syndrome that extends beyond a simple dopamine receptor dysfunction and points to the influence of patient gender on treatment outcome. *Wis Med J* 1989;88(9):23–27.

TOURETTE SYNDROME is a neurological disorder characterized by motor and vocal tics with onset occurring between the ages of 2 and 15 years. The tics may wax and wane, changing their character over time. Persons who are afflicted with the disorder can apparently suppress the tics somewhat, while stress can exacerbate the symptoms. The expression of motor tics is thought to represent a continuum of conditions, with Tourette syndrome at one end, chronic motor tics in the middle, and transient childhood tics on the other end of the spectrum.[1-3] Furthermore, patients with Tourette syndrome may exhibit accompanying behaviors that include obsessive-compulsive behavior, attention deficit disorder, learning disorders, and problems with social interaction among family, friends, and school mates.[4-7]

A genetic component exists in a majority of sampled cases of Tourette syndrome.[8,9] In addition, the disorder has also been shown to best fit a sex-influenced, autosomal dominant mode of inheritance.[10] Although a genetic link between Tourette syndrome and attention deficit disorder has not been established,[12] they appear to be closely associated.[1,11] Conversely, obsessive-compulsive disorder has been proposed to be intimately associated with Tourette syndrome[13,14], if not genetically linked.[15,16]

Haloperidol (Haldol), a dopamine-2 receptor antagonist,[17] has been used successfully to treat a majority of afflicted patients and is usually the treatment of choice[4,6,7]

For patients who do not respond favorably to this drug, a variety of medications is frequently tried. They include other dopamine antagonists such as pimozide (Orap) and fluphenazine (Prolixin), the alpha-2 adrenergic agonist, clonidine (Catapres), the tricyclic antidepressant, imipramine (Tofranil), and the benzodiazepine, clonazapam (Klonopin).

The successful treatment of many patients with haloperidol has led to the hypothesis that the pathology producing Tourette syndrome is due to hypersensitivity of the central dopamine receptors.[6] This hypothesis is strengthened by the presence of reduced levels of homovanillic acid, the major metabolite of dopamine, in the cerebrospinal fluid of persons with this disorder. In addition, several clinical studies have shown that the use of stimulants such as methylphenidate, dextroamphetamine sulfate, or pemoline in children with attention deficit disorder may precipitate the symptoms of Tourette syndrome.[21-24] Similarly, dopamine agonists are known to exacerbate vocal and motor tics.[23,25]

Nee et al[9] compared the difference in response rates to haloperidol among 50 Tourette syndrome patients according to whether they had a family history of the disorder. Among those with a family history for Tourette syndrome, a majority showed a positive response to haloperidol, while a majority of those with no family history did not respond.[9]

The primary purpose of our investigation was to explore the relationship between family history and haloperidol therapy in a large patient population of Tourette syndrome patients from the Midwest.

Methods

For this retrospective study, 500 names were obtained from the Tourette Syndrome Association for members in the states of Wisconsin, Illinois, and Michigan. Each member received a 12-page questionnaire and a self-addressed envelope with return postage. No other compensation was provided for participation in the study. Cover letters were addressed to the Tourette Syndrome Associa-

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This paper won first place in the 1989 WMJ student writing contest. Schwabe is a student at the Medical College of Wisconsin in Milwaukee. Dr Konkol is with the Neurology Department at the same institution. Reprint requests to: Richard J. Konkol, MD, PhD, MACC Bldg, Medical College of Wisconsin, 8701 W Watertown Plank Rd, Milwaukee, WI 53226. Copyright 1989 by the State Medical Society of Wisconsin.

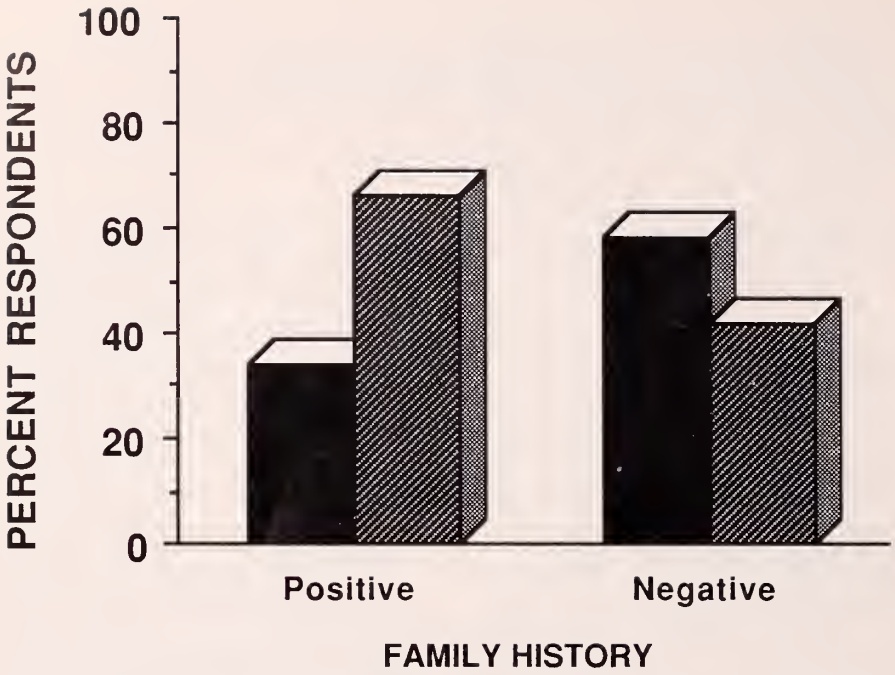

Fig 1.—Response to haloperidol in Tourette syndrome patients with positive (n = 32) or negative (n = 90) family history for tic disorder ($\chi^2 = 5.18$, 1 df, $P < 0.05$). Solid bars indicate no medication changes from initial trial; hatched bars indicate medication change(s) after initial trial.

tion member with instructions for completing the questionnaire for the study subject. Informed consent was obtained from all study subjects, their parents, or guardian. The questionnaire surveyed the subject's medical, family and medication histories. The *Diagnostic and Statistical Manual for Mental Disorders* III[26] was used for the classification of the patients and for terms defined in the questionnaire. All methodology was approved by both the Tourette Syndrome Association Research Review Committee and the Children's Hospital of Wisconsin Human Research Review Committee.

In the analysis of the data, all patients who were previously medically diagnosed as having Tourette syndrome and who had, at least initially, been treated with haloperidol were selected, regardless of age, sex, or other medical diagnoses. The following definitions were used for the analysis of the data: *haloperidol only* was defined as a patient for which haloperidol was the sole medication tried; A *haloperidol switcher* was one who after an initial trial of haloperidol was switched to other medications; a *positive primary family history* for tics was defined as the presence of at least one member of the subject's family (brothers, sisters, father, mother) with a history of either transient childhood tics, chronic motor tics, or Tourette syndrome; and *negative primary family history* for tics was defined as an absence of immediate family members with a history of a tic disorder.

Chi square values were calculated in the analysis of the data, and values of $P < 0.05$ were considered significant.

Results

Of the 500 questionnaires mailed, 213 were returned; of these, 196 persons had been previously diagnosed with Tourette syndrome (157 males; 39 females; mean age, 18 ± 11 years (see Table). Of the remaining respondents, 12 had chronic motor tics, and five, transient childhood tics. Of the 196 Tourette syndrome patients, 122 (90 males; 32 females) had at least an initial trial of haloperidol.

An analysis of the relationship between the primary family history and the distribution of initial haloperidol responders and haloperidol switchers showed that a significant difference existed ($\chi^2 = 5.18$, $P < 0.05$, Fig 1). A majority of patients with no family history were not switched from initial haloperidol therapy (58%). Those with a family history required medication changes after the initial haloperidol trial, rather than being maintained with haloperidol only (34%).

An analysis of the interaction between patient gender, family history, and treatment with haloperidol

Mean ages (± SD) of Tourette syndrome patients with either positive or negative family history for tic disorder and who had at least initial trial of haloperidol (n = 122).*

	Positive family history		Negative family history	
	Males	*Females*	*Males*	*Females*
Haloperidol only	17 ± 7(9)**	22 ± 10(2)	17 ± 8(36)	24 ± 13(16)
Haloperidol switcher	21 ± 10(15)	15 ± 4(6)	17 ± 10(36)	29 ± 16(2)

*Comparisons (Student's t-tests were made within a gender and between outcome groups. No significant differences were found.
**Values in parentheses are group sizes.

accentuated the association between no family history for tics and response to haloperidol. Fig 2 shows the effects of patient gender irrespective of family history for tic disorders (χ^2 = 4.09, $P<0.05$). Males more frequently had medication changes following the initial haloperidol therapy (53%). Surprisingly, females were very likely to respond to haloperidol rather than require a switch in medication (31%).

These differences in response to initial haloperidol therapy between the sexes were magnified when the analysis included only persons with no family history for tics ($\chi^2 = 8.93$, $P<0.01$, Fig 3). Males were found to be evenly divided between those only requiring initial haloperidol therapy and those who were switched from the drug. On the other hand, most females with no family history for tics did not require a change from the initial trial of haloperidol (89%).

If patients with a family history of the disorder were considered, the differences between the sexes in treatment response were eliminated ($\chi^2 = 0.42$, $P<0.10$). In this group, a high percentage of males required medication changes subsequent to initial haloperidol treatment (63%). A similar pattern of response was found among females who changed from haloperidol therapy (75%).

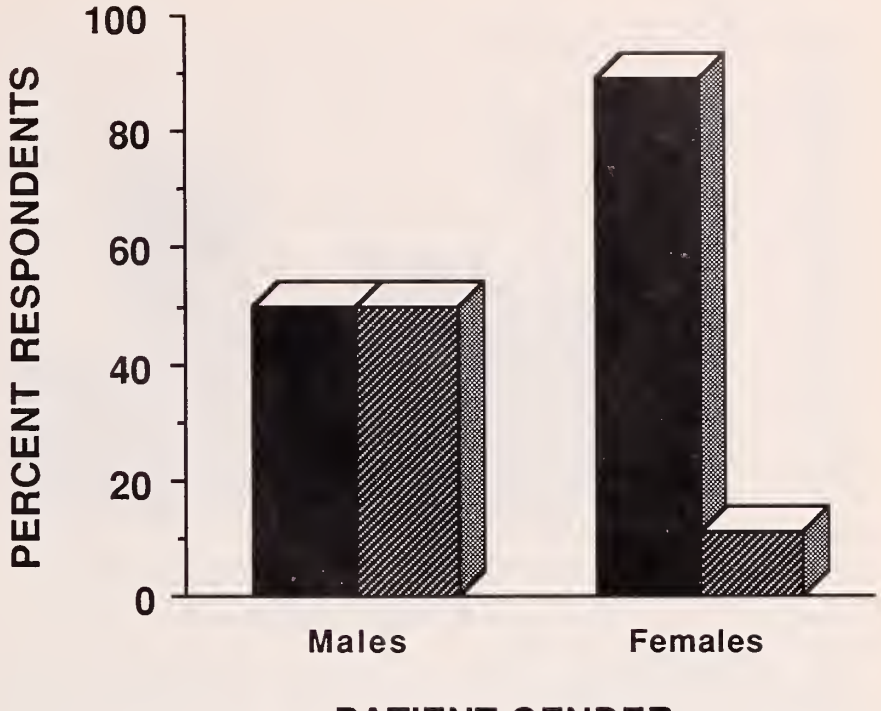

Fig 2.—Response to initial haloperidol treatment among male (n = 97) and female (n = 26) Tourette syndrome patients irrespective of family history for tic disorder ($\chi^2 = 4.09$, 1 df, $P<0.05$). Solid bars indicate no medication changes from initial trial; hatched bars indicate medication change(s) after initial trial.

Discussion

A critical relationship exists between Tourette syndrome and central dopamine dysfunction.[6,18-20] Evidence for a lesion in the dopaminergic system in Tourette syndrome patients is based on pharmacological data showing the predominant success of dopamine antagonists in the treatment of the disorder.[4,6,7] If strict Mendelian transmission is the primary factor in the expression of the symptoms in subjects with a family history of the disorder, then members of these families should respond in a similar manner to a pharmacological agent. This hypothesis was not supported by our findings. Instead, there was more similarity among females with no family history of tics than within those with such a family history. This implies that the symptomatic control and possibly the expression of Tourette syndrome is heavily weighted with other factors aside from the inheritance of a single gene.

In a study of twins, Price et al[27] found that Tourette syndrome was present in both twins of a monozygotic pair in only 53% of cases, while in 8% of dizygotic pairs, both expressed the disorder. It may be, therefore, that the majority of Tourette syndrome cases result from a combined etiology, with several genes playing an important role.

Prospective studies are usually desirable in obtaining accurate patient data.[8] Because ours was a retrospective study, data collection may have been biased in favor of no family history for tic disorders. The effect of additional study subjects with a family history on our analysis of treatment outcome is unknown. In our study, however, a broad definition for a positive family history was used for examining this relationship in more than 100 cases of Tourette syndrome. The large patient population should have increased the sensitivity for a family history by the inclusion of less rigidly defined pedigrees. Therefore, in spite of a low ratio of positive-to-negative family histories, the large sample size seems to validate the idea that those with no family history have fewer medication changes. Furthermore, this indirect technique of data collection can serve to generate viable hypotheses not otherwise apparent in a clinical setting or in small surveys of patients.[3]

Our data on the relationship between family history and treatment outcome with haloperidol differ from those obtained by Nee et al[9]. These researchers defined a positive responder as a patient who had "an unequivocal therapeutic response" to haloperidol. In our study, a haloperidol switcher was defined as a patient who had tried a regimen of haloperidol only and was switched to

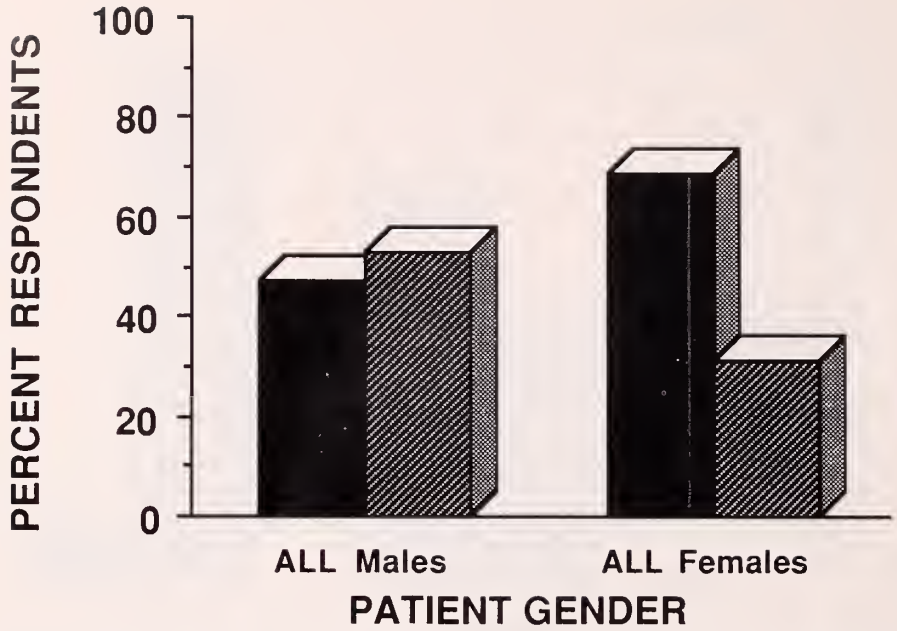

Fig 3.—Response to initial haloperidol treatment among male (n = 72) and female (n = 18) Tourette syndrome patients with a negative family history for tic disorder ($\chi^2 = 8.93$, 1 df, $P < 0.01$). Solid bars indicate no medication changes from initial trial; hatched bars indicate medication change(s) after initial trial.

another medication. We recognize that the haloperidol switchers may have included persons whose medication was changed because of pervasive side effects as well as the ineffectiveness of haloperidol. The reasons for the medication change are unknown without direct interviews. These definitions were applied, however, to all patients independent of family history. These methodological differences may explain the apparent contradictions between our study and that of Nee et al.[9]

Our major finding is that a relationship appears to exist between Tourette syndrome patient gender and treatment outcome with haloperidol. Females showed a significantly increased chance of maintenance on haloperidol, while males required more alterations in the course of treatment. This dichotomy of responsiveness to haloperidol among the sexes may be related to the influence of sex hormones on the central dopaminergic system in females, since the relationship was seen irrespective of family history for tics. Sandyk and Bamford[28] demonstrated that conjugated estrogens may augment the effects of haloperidol, pimozide, and trazodone in Tourette syndrome. One of our study respondents indicated that her daughter experienced an alleviation of symptoms at menarche. The data presented here clearly show that haloperidol therapy is much more successful in females than in males.

A recent study by Erenberg et al,[29] showed that there may be a natural lessening of tics as the Tourette syndrome patient passes through adolescence. It may be expected, for example, that females with a family history who had medication changes might be younger than those who responded to haloperidol, assuming that those who required additional medications had more problems with symptom control than older patients. This was not the case, however, since significant differences were not found between the mean ages of the groups throughout the study (Table).

Finally, several case studies have demonstrated that there may be a premenstrual exacerbation of tics in Tourette syndrome.[30,31] Of further interest is the finding that naltrexone, an opioid antagonist, can decrease this premenstrual exacerbation.[31] Central opioid activity has been shown to fall premenstrually[32] and may result in the premenstrual exacerbation of tics.[30] In addition, opioid antagonists can alleviate the symptoms of Tourette syndrome when used in combination with clonidine[33] or alone.[34] Sandyk et al[30] proposed that female sex hormones interacting centrally in the midbrain and hypothalamic regions may be responsible for the lesion present in Tourette syndrome. In our sample, one girl's symptoms were alleviated at menarche, suggesting that other patterns of hormonal states may influence the expression of this syndrome.

Our study is consistent with the notion that Tourette syndrome is not a homogeneous condition due to a single, genetically determined dysfunction of the central dopaminergic system.[4,6,7] In this survey, the most consistent response to haloperidol was found among females with no family history for tics. The data also lend support for the theory that hormones influence the expression of tics in Tourette syndrome. We recently completed a preliminary clinical study suggesting that tics may increase during the premenstrual and menstrual period. Further investigations into the influence of the hormonal state on central nervous system neurotransmitters are planned.

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High school football injuries: Field conditions and other factors

Bryan L. Andresen, MD, Martin D. Hoffman, MD, and
Lane W. Barton, MD, Milwaukee

This study was conducted to identify factors that were associated with injuries during 59 varsity high school football games in 1987. For each injury, medical personnel recorded data on the type and body location of each injury, player position, specific player activity at the time of injury, the quarter of the game, the week of the season, playing field conditions, and ambient air temperature. We found injury frequencies, types, body locations and seasonal and game quarter distributions similar to previous reports. This study demonstrated a previously unreported association between playing field condition and injury rate. *Wis Med J* 1989;88(10):28–31.

During the 1987–88 school year at least 931,000 students in 14,000 high schools participated in interscholastic football.[1] Even with its popularity, high school football is a relatively hazardous team sport; injuries occur more frequently in football than in any other team sport.[2] The overall likelihood of a high school football player sustaining an injury during a football season has been estimated to be 20%, with an 8% chance of sustaining a serious injury.[3] The risk of an injury occurring during a game is three to 20 times greater than during practice,[4] and the majority of serious and fatal injuries occur in games rather than practice.[2,4] Therefore, the prevention of injuries in high school football games should be of concern to coaches, school and medical insurance officials, parents, and health professionals.

The ability to reduce the number and severity of football game injuries rests on the identification of factors that are associated with an increased or decreased risk of injury. The purpose of this study was to investigate possible associations between injuries to high school football players during games and environmental and playing conditions. This report will concentrate on our observations of injury rates related to playing field conditions and the environmental temperature from injury reports by medical personnel at 59 varsity high school football games.

This paper was an entry in the 1989 *WMJ* resident medical writing contest. From the Department of Physical Medicine and Rehabilitation, Medical College of Wisconsin, Milwaukee. Reprint requests to: Martin D. Hoffman, MD, Department of Physical Medicine and Rehabilitation, Medical College of Wisconsin, 1000 N 92nd St, Milwaukee, WI 53226; telephone: 414-259-1414. Copyright 1989 by the State Medical Society of Wisconsin.

Methods

The study population consisted of the varsity football teams of the 14 Class A high schools within the Milwaukee Public School System. The data were collected during the 1987 football season, encompassing 59 games over a ten-week season. The data were obtained by direct observation and recorded on a standard form by the physician and physical therapist providing medical coverage at each game. An injury was defined as an insult that prevented the player from continuing play or for which medical attention was requested.

For each injury, data were recorded on type and body location of injury, player position, specific player activity at the time of injury, quarter of the game, week of the season, playing field condition, and ambient air temperature.

All games were played on natural turf. The field condition was noted to be in one of four categories. "Good" field conditions implied normal grass cover without recent or ongoing rain; "wet/slippery" conditions implied the addition of rain to normal grass cover; "hard" conditions implied dry, packed-down areas of bare dirt; and "muddy" implied the addition of rain to dirt surfaces.

Air temperature was noted to be in one of four categories. A game was recorded as "cold" if the air temperature was 30 to 44 °F, "mild" if the temperature was 45 to 59 °F, "warm" if 60 to 74 °F, and "hot" if the temperature was 75 to 89 °F.

Injuries were summarized by type and body location of injury, player position, player activity at the time of injury, period of the game, week of the season, playing field condition, and ambient air temperature. A chi-square test with a P value less than 0.05 was selected to indicate statistical significance.[5]

Results

One hundred fifty-two injuries involving 130 athletes were evaluated. Five of the injuries occurred before the game, usually the result of a pre-game warm-up. The average frequency of injuries was 2.6 injuries per game (including pre-game injuries) or 0.14 injuries per player-hour of actual game time. The most common types of injuries were contusions (44%), strains (16%), and sprains (13%). Less frequent injuries included cramps (7%), concussions (5%), and abrasions or lacerations (3%). Sixty percent of the cramps (six of ten) occurred in the third quarter. Peripheral nerve injuries, fractures, and dislocations or separations each accounted for 2% of the total injuries.

The most common body site of injury was the knee (18%) followed by the lower leg (13%), shoulder (13%), and ankle (9%). Less common locations included the head (7%), back (5%), and the neck (4%).

The distribution of injuries varied according to player position. Based on

the data of 87 injuries for which player position was noted, positions accounting for the most injuries included players in the backfield other than quarterback (43%), tackles (18%), guards (12%), and ends (10%). Positions with relatively fewer injuries included quarterbacks (6%), safeties (5%), and centers (5%). Taking into account the number of players at each position, the relative risk of the safety position was the lowest (arbitrarily defined as 1.0). The highest relative risks of injury were in the non-quarterback backfield (3.1), quarterback (2.5), tackle (2.0), and center (2.0) positions. Lower relative risks were seen in the end and guard positions (1.1 and 1.2, respectively). Offensive and defensive players were equally affected (51% and 49%, respectively).

The most common actions resulting in injury were tackling (32%), blocking (26%), carrying the ball (19%), and being blocked (10%). Injuries sustained while running, receiving, and passing each accounted for 3% or less of the injuries.

An evaluation of the period of the game when the injury was sustained revealed that first quarter injuries accounted for a significantly lower ($P<0.05$) proportion (13%) of the injuries evaluated (Fig 1). The proportions of injuries during the second, third, and fourth quarters accounted for 29%, 31%, and 24%, respectively. Three percent of the injuries were evaluated prior to the game.

The weekly average number of injuries per game throughout the season is shown in Fig 2. While there was no statistically significant difference in injury frequency during the season, the trend was for the frequency of injuries to be highest in the first half of the season with a peak at midseason and a decrease in injury frequency during the final four weeks of the season.

The frequency of injuries at different ambient air temperatures is shown in Fig 3. While no statistically significant associations were evident, the trend was for the injury rate to be greatest when temperatures were "hot" (3.2 injuries per game) or "warm (2.9 injuries per games). The lowest frequency of injuries occurred during "mild" temperatures (2.0 injuries per game) and "cold" temperatures (2.4 injuries per game).

Significant differences ($P<0.05$) in injury rates were observed under different field conditions (Fig 4). The lowest injury rate (1.7 injuries per game) occurred during "wet/slippery" conditions, and the highest injury rate (3.3 injuries per game) was seen under "good" field conditions. Intermediate rates were observed during "muddy" and "hard" conditions (2.1 and 2.3 injuries per game, respectively).

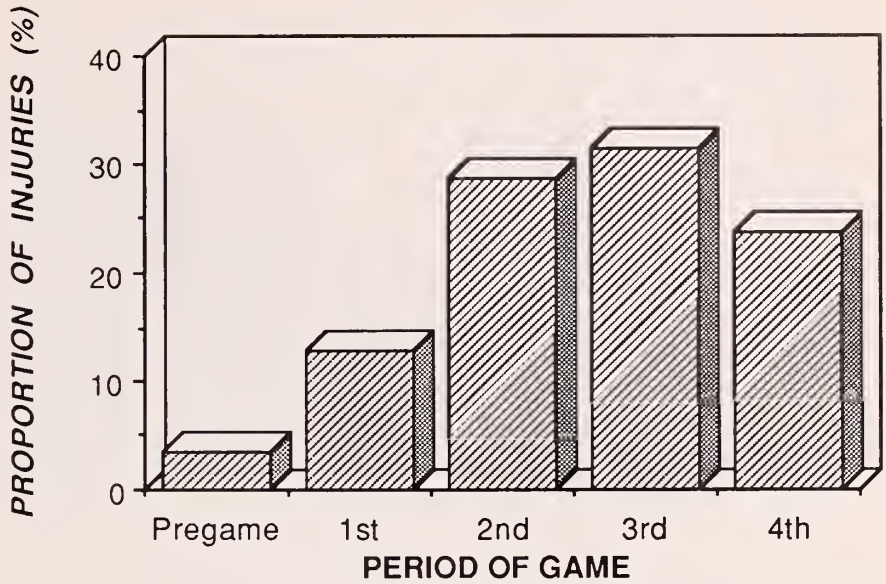

Fig 1.—Proportion of injuries (%) for each period of the game.

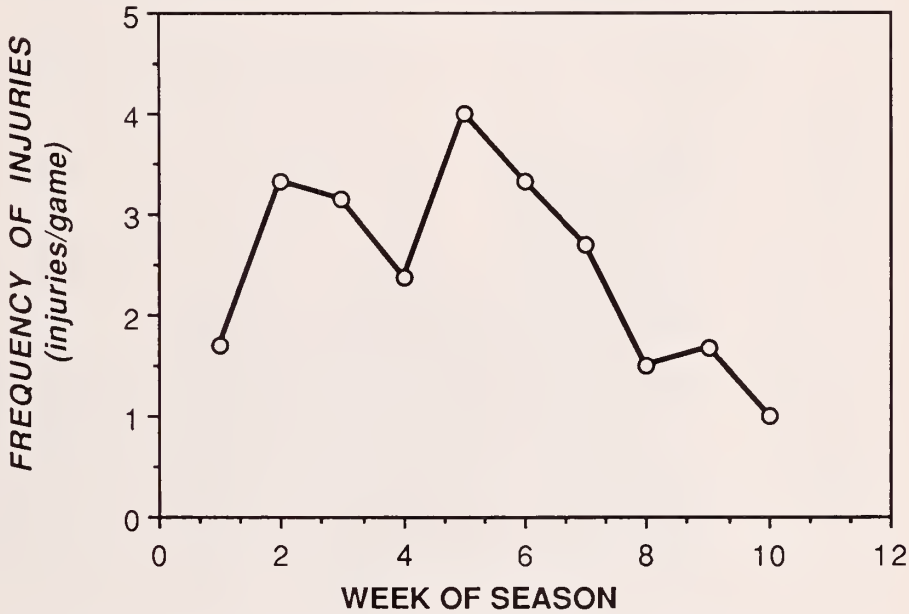

Fig 2.—Average number of injuries per game for each week of the season.

Discussion

Is there an association between the condition of the playing field and injury risk? This question was indirectly addressed when Mueller and Blyth reported a 30% reduction of

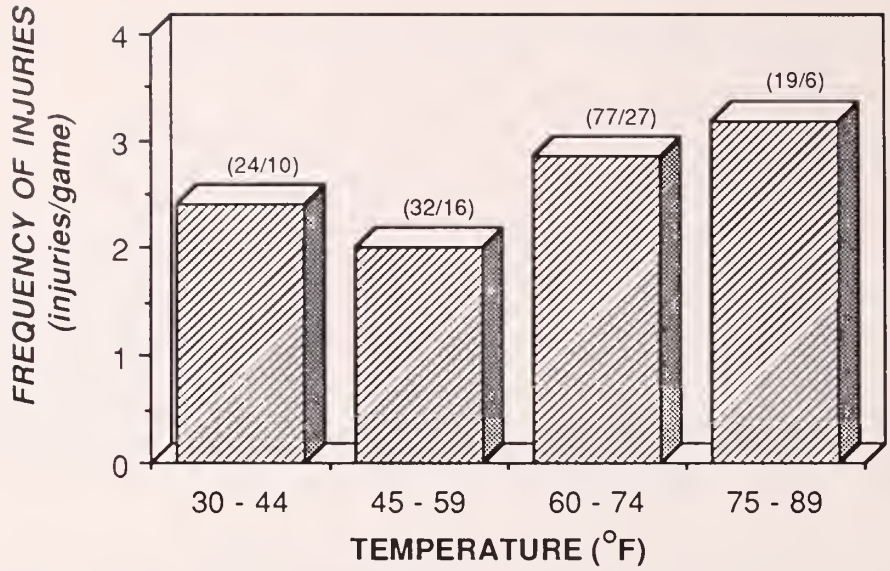

Fig 3.—Frequency of injuries (injuries/games) at different ambient air temperatures. The numbers above each bar represent the number of injuries and games for the specified temperatures.

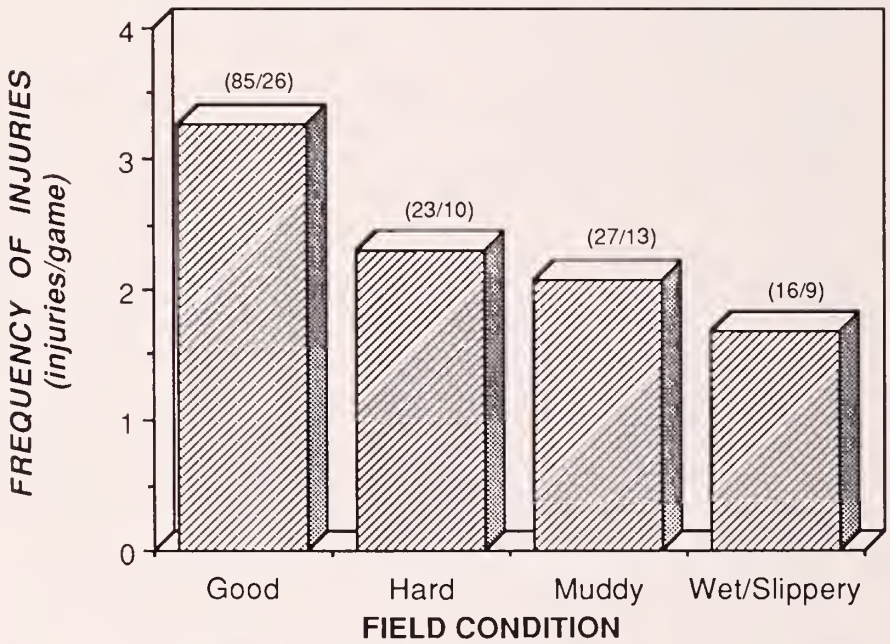

Fig 4.—Frequency of injuries (injuries/games) under different field conditions. The numbers above each bar represent the number of injuries and games for the specified field condition.

knee and ankle injuries when high school football games were played on resurfaced and well-maintained fields rather than normal "control" fields.[6] In addition, the reduction of injuries was greater (46%) in athletes wearing soccer-style shoes, as opposed to football shoes with metal cleats, who played on the resurfaced fields.[6] The study focused more on the shoe type, rather than the field condition, in explaining injury rates. A theory relating cleat type to injury has suggested that soccer shoes were less likely to get caught in the turf and remain stationary when the player was rotated, either from internal or external forces.

Another way of examining the importance of playing field surfaces is to compare injury rates on artificial *v* natural fields. Unfortunately, because relatively few high schools play on artificial turf, no statistically valid reports are available. Nevertheless, one study of college athletes found a statistically significant increased risk of knee and ankle injuries when athletes played on artificial surfaces.[7] The authors were careful not to suggest a cause and effect relationship, but did recommend additional study of injuries as related to playing surfaces.

The present study demonstrates a statistically significant variation in injury rate relative to field condition. To the authors' knowledge, no other studies have reported specific field conditions as a variable associated with injury rates. "Good" conditions were associated with the highest frequency of injury (3.3 injuries per game) while "wet/slippery" conditions were associated with the lowest (1.8 injuries per game). "Hard" and "muddy" conditions were associated with intermediate injury rates (2.3 and 2.1 injuries per game, respectively). We postulate that a "wet/slippery" playing field may be associated with lower injury rates because of reduced player velocity and reduced rotational stability of the shoe with the ground.

The data presented in this report also suggest a trend for fewer injuries to occur in cooler playing conditions. This trend may be related to the lower injury rate in the later weeks of the season when temperatures also tend to drop as winter approaches. Other studies have similarly noted decreased numbers and rates of injury as the season progresses, especially after midseason.[8-11] Whether this trend of fewer injuries later in the season is due to ambient air temperatures, better conditioned athletes, attrition of injury-prone players, less aggressive playing in the final weeks, or some other factor is unknown.

Does the trend of decreasing injury rates during the last half of the season account for the lower injury rates noted under "wet/slippery" and

"muddy" conditions? It does not appear so. In the final four weeks of our study period, only one week was characterized by "muddy" field conditions, and no games were played under "wet/slippery" field conditions. Decreased injury rates in the "wet/slippery" or "muddy" conditions are therefore probably not simply due to more games being played under these conditions in the final weeks of the season.

Our study found statistically significant variations in injuries within the different quarters of the games. Fewer injuries occurred in the first quarter, and the highest injury frequencies were in the second and third quarters. These observations are similar to trends noted in other studies.[9,11,12] Interestingly, 60% of the cramps in this study occurred in the third quarter. Reasonable preventative measures would include additional warm-up exercises and fluid intake during half-time. Better general conditioning may also help reduce the increased injury rate found after the first quarter.

The population serving this study appeared to be similar to those in other reports. In this study, contusions, sprains, and strains accounted for 73% of all injuries. Concussions, fractures, and dislocations or separations each accounted for 6% or less of the injuries. These proportions are similar to those in previous reports.[3,8,9,10,13] In this study the knee was the most frequent site of injury (18%) with the lower extremity accounting for approximately 50% of all injuries. Again, these percentages are similar to those of other studies.[3,4,8,9,10] This suggests that the results of this study may generalize to other high school football programs.

A problem that arises when reporting the incidence of football injuries is determining the population at risk. Injury data are often expressed in injuries per number of participants at risk. However, every athlete may not play in each game and therefore, including all players as the population at risk may not be accurate. A solution to this problem is to report injuries per unit of time of player exposure, such as injuries per player-hour.[14] Unfortunately, little high school football data are reported in this way. In this study, the incidence of injury was 0.14 injuries per player-hour. This is very similar to the injury rate of 0.12 injuries per player-hour for the same population during the 1986 football season.[8] Moretz reported a higher rate of 0.51 injuries per player-hour. In his study, however, an injury was defined as any trauma that resulted in an altered or lost practice session or game.[4] This greater game injury rate probably relates to the use of a definition of injury that could result in the inclusion of a larger number of injuries. Unfortunately, no common definition of an athletic injury is available in the sports literature.[14]

The total number of injuries in this study is relatively small and makes significant associations difficult to document. Our method of data collection, of a physician and physical therapist using direct observation, interview, and physical examination, is probably optimal. The three most common techniques for obtaining sports injury data—reviews of medical records, self reporting questionnaires, or reviews of insurance claims—are felt to contain both negative and positive biasing.[14]

In conclusion, this study has characterized 152 high school football game injuries. The injury frequencies, types, body locations, and seasonal and game quarter distributions were found to be similar to previous reports. A previously unreported association of field conditions with injury rates is demonstrated, however. While the numbers in our report are small, the study points to the need for further studies using prospective, direct observation techniques to further define the importance of environmental factors in determining injury rates in high school football players.

Acknowledgement

The authors wish to thank Drs J. Young, T. Corsolini, R. Fisher, S. Jayaprakash, and J. Lincer, and the Sports Rehabilitation Program at the Curative Rehabilitation Center for their assistance with data collections; and to thank Janis Doleschal, commissioner of sports at the Milwaukee Public Schools, for support of our support.

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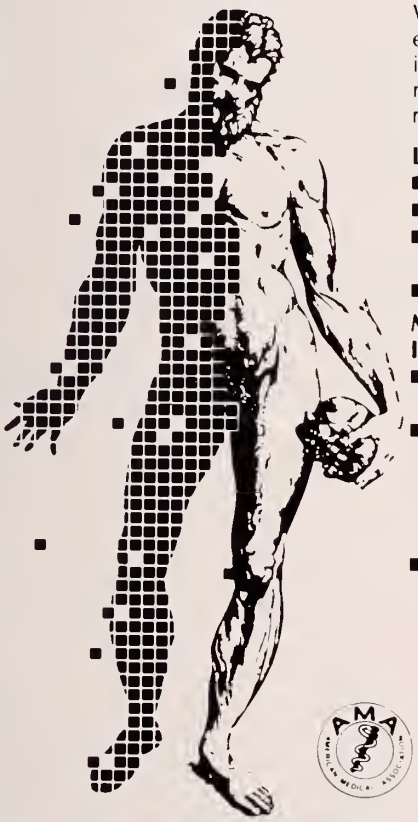

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Rules:

- Papers must be original, unpublished, and credited to one student author (although multiple authors may be listed).
- To ensure scientific validity and responsibility, each entry must be co-authored by a member of the faculty. (Only the student author will receive the award.)
- Contestants should focus on nursing intervention to demonstrate improved care and results, strategies which augment the delivery of effective care by nurses, or approaches to encouraging greater physician-nurse collaboration in delivering care.
- Entries are limited to 10 pages, typewritten, double-spaced pages, with 1-inch margins.
- Illustrations are admissible, but must be included in the 10-page length limit.

Judging: An initial panel of judges, comprised of deans from three nursing schools or their designees, select the top three papers from the total number of entries. The Editorial Board of the *Wisconsin Medical Journal* will select the winner from these three papers. In the case of a tie, the winner will be selected by the medical editor of the *Wisconsin Medical Journal.* The medical editor has final authority.

Criteria: Scientific merit, applicability, feasibility of conclusions, innovation and clarity of writing and organization.

Understanding expenditure targets

Expenditure targets (ETs) are intended to limit Medicare Part B outlays. Their purpose is to restrain growth in the volume of Part B claims by making lower payments to physicians a consequence if total Medicare Part B expenditures exceed the target level of expenditures.

In "Year 1," Congress sets a target level of expenditures for Medicare Part B. If "Year 1" total Part B expenditures exceed the target, "Year 2" Part B payments to physicians would be reduced below the otherwise projected levels.

The lower payments would be implemented in the form of changes in the conversion factor update for the RBRVS, which in effect would reduce or eliminate the scheduled MEI increase for higher practice costs.

If Congress sets the target too low, and the volume of needed services exceeds that predicted, physicians would in effect be penalizing themselves with lower future payments for offering necessary services to the elderly. If outlays are lower than the target for a given year, providers potentially would receive fee updates that exceed actual cost increases.

ETs would have no effect on most practices in "Year 1," but if the growth of the services exceeds the targeted volume, "Year 2" would bring a reduction in *the scheduled increase* in payments to physicians. Potentially, under some proposals, that reduction could take the form of an actual cut from "Year 1" payment levels.

It is not yet certain whether ETs—if and when they are approved—will be set on a national basis or be broken down by specialty, region or both. One of the proposals currently under consideration would set targets for fiscal year 1990, with the first year's expenditure target set at 0.5% below the projected rise in Part B outlays for fiscal year 1990.

Wisconsin's Birth and Development Outcome Monitoring Program

Richard Aronson, MD, Dorothy Griebel, OTR, and James Cobb, PhD
Wisconsin Division of Health, Department of Health and Social Services, Madison

The first of two parts.

History and development. In Wisconsin, 1,144 infants born in 1987 were diagnosed with congenital anomalies. Frequently, these newborns have chronic problems and developmental delays, and need the benefits of prompt medical care or support services. Wisconsin created the Birth and Development Outcome Monitoring Program (BDOMP) to identify and improve service delivery to all children with disabilities. The BDOMP was created through the support of, and in conjunction with, health-care professionals, parents, and advocacy groups. Starting on Jan 1, 1990, Wisconsin law (Wis Stats §148.026) will require all physicians to report children (aged birth to 6 years) who exhibit evidence of birth defects, developmental delays, adverse neonatal outcomes, or other disabling conditions.

The BDOMP has two components: epidemiologic data collection, and facilitating service delivery. The cause of a developmental delay is frequently difficult to establish, especially for older children, but relationships between developmental delays and such factors as nutrition, infection, injury, genetically inherited disorders, and living conditions are being carefully evaluated. The epi-

Dr Aronson, Ms Griebel, and Dr Cobb, are with the Wisconsin Division of Health, Department of Health and Social Services.
The authors wish to acknowledge Bill Adkins, MD, and Nathan Page, MD, for consultation provided for this segment.

demiologic aspect of the BDOMP is vital to gaining information about the effects of these factors and detecting the incidence, cause, and trends of developmental delays, congenital anomalies and disabling conditions occurring in the state. Physicians are required to report a suspected or confirmed diagnosis or condition, even though the condition or diagnosis may not be currently interfering with the child's normal functioning.

To facilitate service delivery, the BDOMP will share report information (with parental consent) with local public health agencies. Sharing information will help link children and their families with available community resources. In addition, information about the child will be shared with the Department of Public Instruction (DPI); if the child's disability meets DPI program criteria, the child may be eligible to receive special DPI early intervention services.

Early identification of disabled children, coordinated with the prompt implementation of intervention services, has proven to be cost-effective. The combined efforts of health professionals, educators, parents, and state agencies will help alleviate the needs and frustrations many families encounter. Improved service delivery systems will serve to better meet the disabled child's current and long-term needs, as well as the family's needs. The data base generated by the BDOMP reports will provide information that can be used to evaluate the state-wide availability of medical or support services.

Other states have developed programs similar to the BDOMP. Data collected in these states has resulted in increased medical, educational, and financial resources being generated for programs.

Although some Wisconsin areas have medical facilities with service systems and tertiary referral systems geared toward providing superior services to disabled children and their families, many other areas are not so fortunate. Some children wait months or years before their families are able to obtain necessary medical or support services. There are many reasons for these delays. Frequently, there is an absence of appropriate community services. Some children are lost to follow-up. Other delays are caused by the family's initial denial of their child's condition (acceptance of a disability is gained only by passing through lengthy, emotional stages of coping). The intent of the BDOMP in this respect is to facilitate and encourage the timely delivery of necessary services.

The BDOMP staff members are genuinely interested in the concerns physicians have expressed: patient confidentiality, release of patient information, the time required for completing another form, and the critical role that physicians perform in respect to medical management and referrals for patient's services. Written agreements, to be signed at participating agencies, which address these concerns and safeguard physician's roles are being developed, as is a concise reporting form. Physician involvement in developing the reporting form has been welcomed, and their suggestions have been incorporated.

A draft version of the BDOMP reporting form is currently being tested at a number of sites. Suggestions for revisions will be accepted until November. The final form, which will be ready for distribution on Jan 1, 1990, is expected to take fewer than 15 minutes to complete. Physicians interested in knowing whether a child's condition has been previously reported will be able to obtain that information.

Draft form information (unlike information received after Jan 1, 1990) is not being shared with local public health agencies or the DPI. Information submitted on draft forms is only for developing the final reporting form, establishing procedures for use, and verifying the computer system. Strict procedures to safeguard confidentiality have been developed and are available upon request.

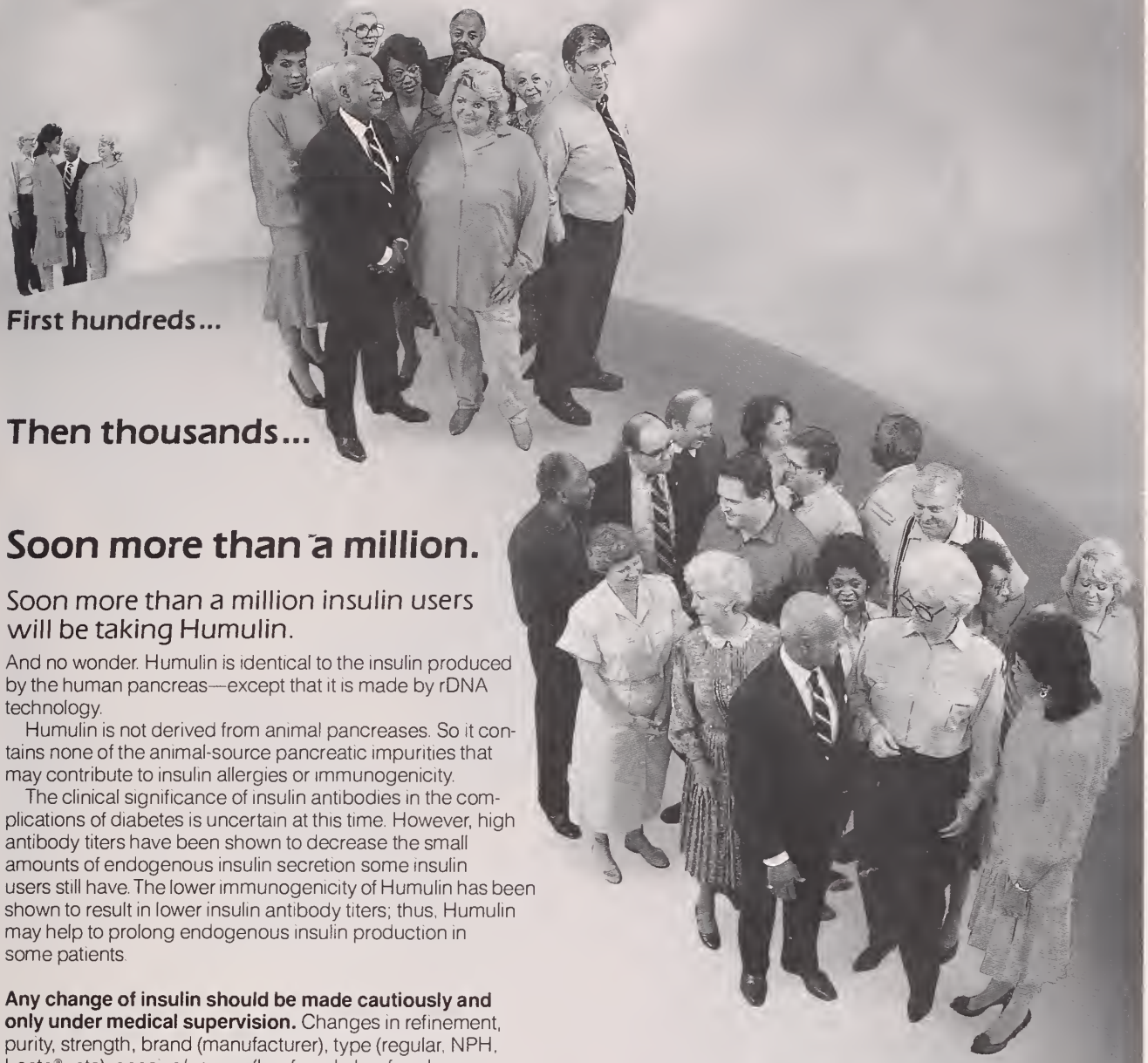
For more information regarding program details, or to make suggestions, please contact James Cobb at 608-266-7213, or Dorothy Griebel at 608-267-3858. Medically related questions should be directed to Richard Aronson, MD, at 608-266-5818.

Editor's note: Part two will answer the questions most frequently asked by physicians about the BDOMP. Look for it in an upcoming issue of the *WMJ*.

Blue Book update

On page 57 of the July 1989 Blue Book edition of the *WMJ* Peter Parthum, MD, Muskego, should be deleted from the Physicians Alliance Commission.

On page 60, delete the subcommittee Patients Compensation Fund/ WHCLIP.



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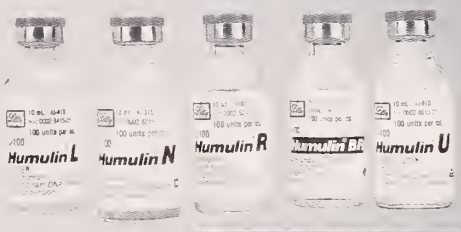
The clinical significance of insulin antibodies in the complications of diabetes is uncertain at this time. However, high antibody titers have been shown to decrease the small amounts of endogenous insulin secretion some insulin users still have. The lower immunogenicity of Humulin has been shown to result in lower insulin antibody titers; thus, Humulin may help to prolong endogenous insulin production in some patients.

Any change of insulin should be made cautiously and only under medical supervision. Changes in refinement, purity, strength, brand (manufacturer), type (regular, NPH, Lente®, etc), species/source (beef, pork, beef-pork, or human), and/or method of manufacture (recombinant DNA versus animal-source insulin) may result in the need for a change in dosage.



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Assembly committee holds hearing on durable power of attorney

The Assembly Health Committee held a well-attended public hearing Aug 22 on AB 305, a bill that would create a durable power of attorney for health care, under which a person could appoint someone to act as his or her health care agent to make decisions regarding treatment in the event the person became incapacitated. T. Bayard Frederick, MD, of Fond du Lac, and Bruce Kraus, MD, of Columbus, spoke in favor of the bill and eloquently described the real-world dilemmas physicians often face when patients become incapacitated and there is no one authorized to make treatment decisions on the patient's behalf, or when there is disagreement among family members over the course of treatment to be taken.

Most of those present spoke in favor of the bill, including the Catholic Health Association of Wisconsin and various representatives of senior citizen groups. The legislation was opposed, however, by Wisconsin Right to Life because it would not prohibit withdrawal or withholding of artificial nutrition or hydration. Under the bill, decisions on these and other treatment issues could be communicated in advance by the patient and expressed through the designated health care agent.

SMS supports the proposed legislation, contingent upon elimination of civil and criminal penalties for failure to comply with the directives of a durable power of attorney for health care.

Public health

Routine checkups among Wisconsin adults: 1987–1989

Patrick Remington, MD, and
Paula Lantz, MA, Madison

PERIODIC ROUTINE examinations are recommended for all persons to assess general health, to screen for disease, and to provide education about health risks. Recently, the US Preventive Services Task Force issued recommendations for the prevention and early detection of 60 diseases and conditions.[1] The extent to which these guidelines are implemented in clinical practice among Wisconsin physicians depends, in part, on how often adults visit their physicians for routine checkups. The purpose of this paper is to describe the self-reported use of routine checkups among Wisconsin adults to assess opportunities for prevention in clinical practice.

Dr Remington is a medical epidemiologist in the Chronic Disease Surveillance Unit, Section of Environmental and Chronic Disease Epidemiology, Wisconsin Division of Health. Lantz is a senior research specialist in the Center for Health Policy and Program Evaluation and a graduate student at the University of Wisconsin–Madison. Reprint requests to: Patrick Remington, MD, Wisconsin Division of Health, 1 W Wilson St, Madison, WI 53701-0309. Copyright 1989 by the State Medical Society of Wisconsin.

Methods

Data from the 2,613 adults interviewed in the Wisconsin Behavioral Risk Factor surveys for 1987 and 1988 were analyzed to determine the self-reported use of routine medical checkups. These surveys are random digit-dialed telephone interviews conducted by the Wisconsin Survey Research Laboratory. Responses to the following question are described: "Some people visit a doctor for a routine checkup, even though they are feeling well and have not been sick. About how long has it been since you last visited a doctor for a routine checkup?" Differences in the use of routine checkups by age, sex and race are reported. All prevalence estimates are weighted to account for the survey sampling design. All sub-group differences stated in the text are statistically significant ($P<.05$, chi-square test of significance).

Results

The majority of men and women in this sample (58%) reported that they had seen a physician for a routine checkup during the past year (Table). Another 16% reported that they had had a checkup between one and two years ago. Less than 3% claimed to have never had a routine checkup.

The timing of the last routine checkup varied by age and by sex. Older persons (over age 40) were more likely to report a checkup within the past year, and the use of physicians for routine checkups generally increased with age. This finding is not surprising since the recommended

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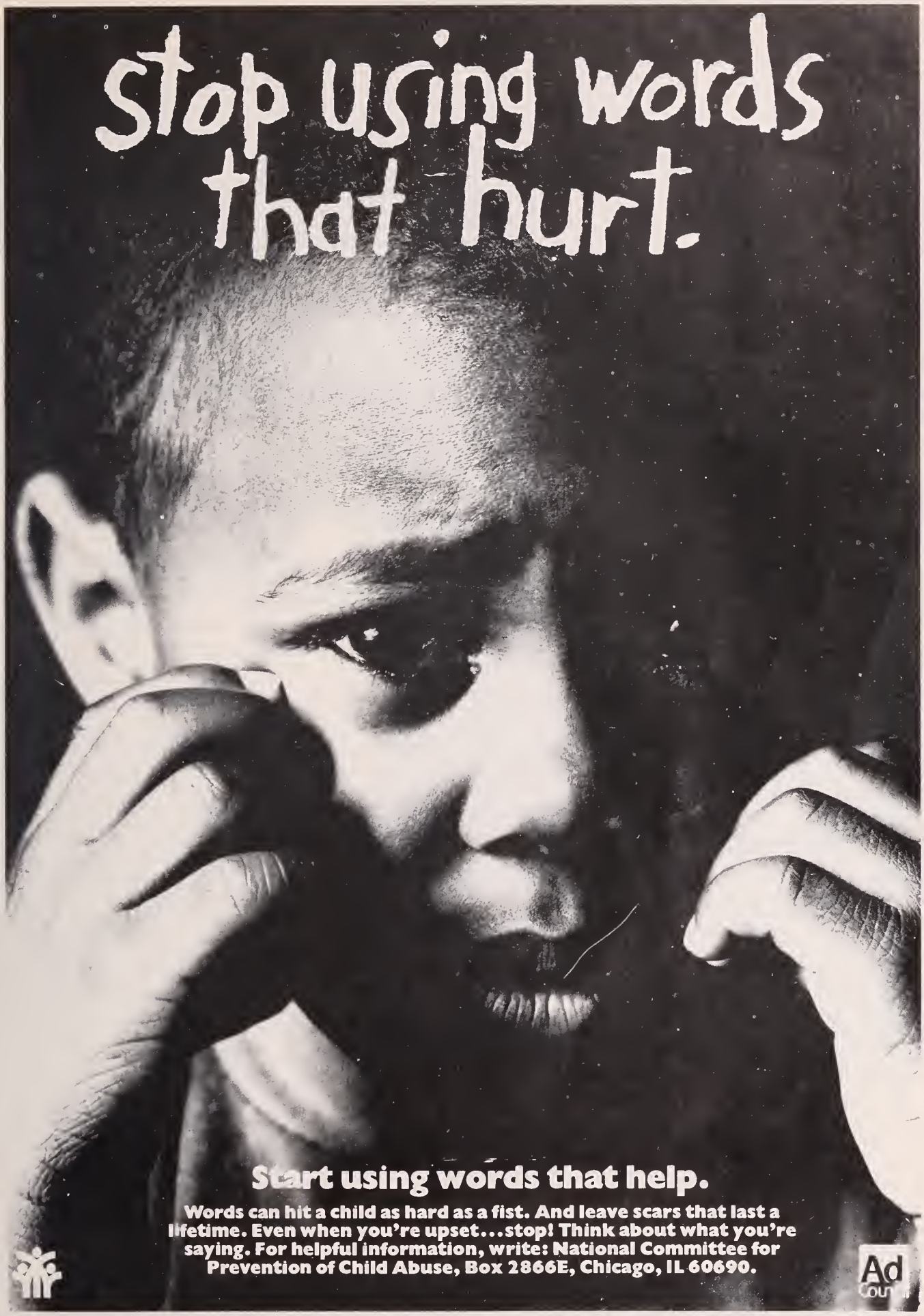

Wisconsin Committee for Prevention of Child Abuse, 1045 E. Dayton St., Rm. 202D, Madison, WI 53703. (608) 256-3374.

Continued from page 38
frequency for many screening tests also increases with age. Overall, 65% of adult women and 51% of adult men reported a routine checkup within the past year. Women reported more recent checkups than men in all age-groups analyzed except 50 to 64 years (Figure). The difference between men and women in the use of routine checkups was most pronounced in the 18-to-34 age group, presumably because of obstetric and gynecologic visits.

Compared with whites, black adults reported more frequent routine checkups in all age groups. Among blacks, 81% indicated that they had had a routine checkup within the past year, compared to 57% of whites. There were no significant differences in the timing of the last routine checkups among different education or income groups once the age of the respondent was controlled for.

Time since the last routine medical checkup among Wisconsin adults, 1987–1988

	Age group	(N)	Past year	1–2 Years	2–5 Years	Over 5 Years	Never/ Don't know
Males	18–39	616	41%	19%	15%	20%	5%
	40–64	424	56	16	13	12	3
	65+	184	64	9	8	13	6
	All	1224	51	16	13	16	4
Females	18–39	642	61	17	13	8	1
	40–64	435	63	17	9	8	3
	65+	312	77	11	4	6	2
	All	1389	65	16	9	8	2
Total	18–39	1258	51	18	14	14	3
	40–64	859	60	17	11	9	3
	65+	496	71	10	6	9	4
	All	2613	58	16	11	12	3

Fig. 1.—Percent of adults reporting a routine checkup within the past year, by age and sex, Wisconsin, 1987–1988.

Discussion

Since the 1920s, when the American Medical Association and the Metropolitan Life Insurance Company first endorsed the annual physical examination of healthy adults, physicians and their patients have viewed the

Continued on page 42

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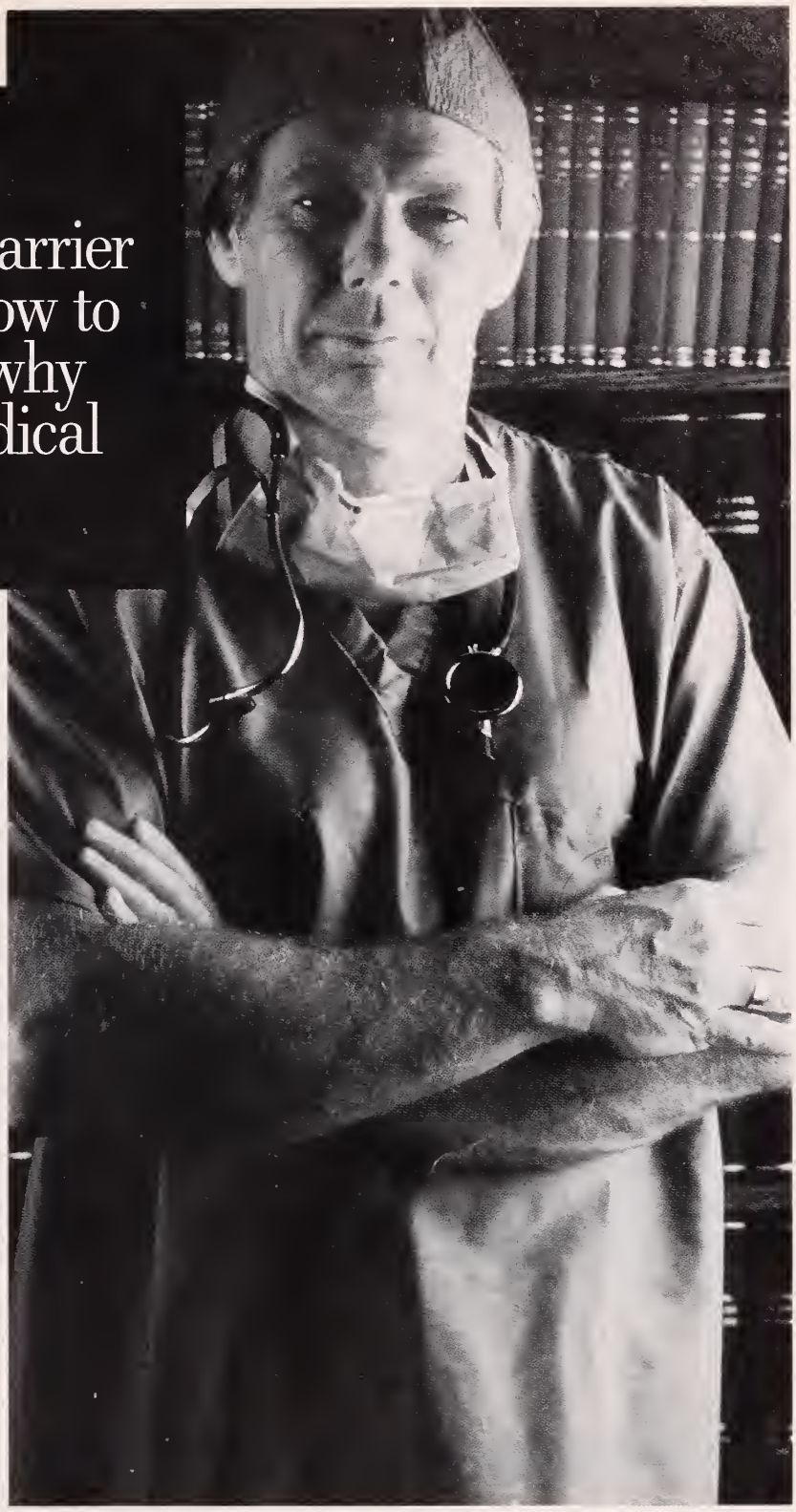

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Continued from page 40
annual examination as the crux of preventive medicine.[2] Within the past decade, however, the *annual* physical examination has been replaced with the concept of the *periodic* health examination, where primary care prevention is dispensed through a lifetime program of health protection services targeted to specific age and sex groups.

Periodic health monitoring is an evolving concept, and the selection of the preventive health package for a particular age-sex group requires frequent re-examination and updating. In 1980, the Canadian Task Force on the Periodic Health Examination evaluated the scientific evidence regarding the efficacy of diagnostic and therapeutic practices for 78 target conditions in the process of defining age- and sex-specific health protection packages.[3] The US Preventive Services Task Force has just released the results of its efforts to review current scientific evidence and to issue its own recommendations for screening and counseling interventions for various age, sex and identifiable risk groups.[1]

The health policy of establishing and disseminating these guidelines promotes the most cost-effective use of a physician's time for the delivery of clinical preventive services. In our analysis of Wisconsin survey data, we found that a majority of all adults report seeing a physician for a routine checkup within the past one to two years. Given this high reported use of the routine checkup, the opportunities for the delivery of preventive health services exist for Wisconsin physicians. A future paper in this series will address the extent to which Wisconsin adults report receiving specific health examinations, such as screenings for breast, cervical and colon cancer.

Acknowledgements
Michael Soref, PhD, Center for Health Statistics, is the coordinator of the Behavioral Risk Factor Surveys for the Wisconsin Division of Health. Funds for the surveys were provided through a cooperative agreement with the Centers for Disease Control. This work was also made possible by a grant from the National Cancer Institute (grant R01-CA-46883).

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1. US Preventive Services Task Force: *Guide to Clinical Preventive Services.* Baltimore, Williams and Wilken, 1989.
2. Lawrence R., and Mickalide A: Preventive services in clinical practice: Designing the periodic health examination. *JAMA* 1987;257:2205–2206.
3. Task Force on the Periodic Health Examination: *Periodic Health Examination: Report of a Task Force to the Conference of Deputy Ministers of Health.* Hull, Quebec, Canada, Canadian Government Publishing Centre, 1980.

Series Coordinators

Henry Anderson, MD, chief of the Wisconsin Division of Health's Section of Environmental and Chronic Disease Epidemiology, and Patrick Remington, MD, are coordinating this public health series for the *Wisconsin Medical Journal.* The US Preventive Services Task Force's *Guide to Clinical Preventive Services* is a comprehensive review of the evidence for preventive interventions for 60 diseases and conditions. The topics covered include cancer screening, blood pressure measurement, estrogen chemoprophylaxis, and adult immunizations. Recommendations for screening and counseling interventions are based on sex, age and other risk factors. Included are introductory chapters on methodology and the implementation of preventive services, eight charts listing recommended preventive interventions for different age groups, and 60 extensively referenced topic reviews. Health professionals may purchase the guide for $19.95 by calling 1-800-638-0672.

SMS takes position on fetal alcohol syndrome

The SMS Board of Directors adopted the following statement as SMS policy at its July 1989 meeting: "Because the effects of a pregnant woman's moderate intake of alcohol on the fetus and the threshold at which alcohol damages a developing conceptus in a given individual are unknown, it is prudent to avoid alcohol during pregnancy."

The policy was recommended in a report by the SMS Committee on Maternal and Child Health. The report rose from a committee discussion of Assembly Bill 228, which would require physicians, nurses and other medical professionals to report cases of fetal alcohol syndrome to their county department of social services. The Physicians Alliance Commission has taken no position on the bill.

Frank Urban, MD, elected to State Assembly

Frank H. Urban, MD, is now also Rep. Urban (R-Elm Grove), having been elected to represent Wisconsin's 99th Assembly District. Dr Urban won a three-way primary race on Aug 15 with 38% of the vote and the Sept 12 general election with 95%. There was no Democratic candidate.

Dr Urban is a member of the SMS Board of Directors and a former member of the WISPAC Board of Directors. His political involvement includes services as Elm Grove village president, Elm Grove village trustee, chair of the Elm Grove village Planning Commission and Legislative Committee, and memberships in the State Task Force on Health Care for the Uninsured, Fair Liquidation of Waste Executive Committee, Waukesha County Municipal Executive Association and Blue Mound Corridor Task Force. Dr Urban has also been president of his local PTA and has provided 26 years of continuous volunteer service to the Boy Scouts of America.

Educated at the University of Wisconsin and the Mayo Clinic, Dr Urban is a dermatologist and assistant clinical professor at the Medical College of Wisconsin.

Look for an in-depth interview with Dr Urban in an upcoming issue of the *WMJ*.

Wisconsin Supreme Court Justice William G. Callow (left) swears in Dr Frank Urban to represent the 99th Assembly District.

County society news

Brown. Sixty-four members were present at the April meeting of the Brown County Medical Society. The guest speaker was attorney Frederick Geilfuss of Milwaukee. His topic was "Anti-trust as it applied to medicine."

Fond du Lac. Lawrence Bauer, MD, of Neenah, was the guest speaker at the April meeting of the Fond du Lac County Medical Society. He spoke on "The threat of radon exposure in homes." A joint meeting with the auxiliary of the county medical society was held in May.

Rusk. The April meeting of the Rusk County Medical Society was held in Holcombe. Guest speakers were Rep Robert Larson and Dale Larson, MD, of the Marshfield Clinic. Rep Larson spoke on "Rural health care issues," and Dr Larson spoke on "Evaluation and management of abnormal Pap smears and uterine bleeding."

Continued on next page

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Wood. The April meeting of the Wood County Medical Society was held at Stevens Point. Ninety-three members and guests were present. Richard H. Ulmer, MD, chairman of the SMS Board of Directors, spoke on the Resource Based Relative Value Schedule. SMS Field Representative Larry Martin discussed a variety of socioeconomic matters, as well as the legislative program.

Winnebago. Thirty-three members were present at the May meeting of the Winnebago County Medical Society. Walter Gager, MD, of Madison, was the guest speaker and spoke on "The aging eye."

News highlights

The 1989–1990 officers of the Milwaukee Ophthalmological Society are: Gary W. Abrams, MD, president; Richard Davenport, MD, vice president; Larkin Allen, DO, secretary; and Russell Gonnering, MD, treasurer. Further information regarding program, meeting dates, or membership may be obtained by contacting Arline Witherbee, executive secretary, PO Box 26244, Milwaukee, WI 53226-0244; phone 414-259-1930.

The Wisconsin Neurological Society will hold its fall scientific program Nov 3–4, 1989, at the Edgewater Hotel in Madison. Invited speakers include William R. Kennedy, MD, professor of neurology at the University of Minnesota Medical School and Michael S. Pessin, MD, associate professor of neurology and director of the stroke service at the Tufts University School of Medicine. Dr Kennedy will speak on relative value systems in health care economics, and Dr Pessin on tissue plasminogen activator treatment in acute stroke.

SMS President William L. Treacy, MD, (left) presents Charles L. Junkerman, MD, (right) with an SMS Distinguished Service Award at a meeting of the Board of Directors.

David Dries, chair of the SMS Section on Medical Students-UW Chapter, was recently appointed to the 1989–90 States Leadership Conference Steering Committee of the AMA. The steering committee is charged with investigating ways of developing state medical student sections (MSS) through conferences of state leaders held at MSS-AMA meetings.

The Medical Examining Board held a hearing in August on its proposal to amend the rule regulating the use of amphetamines. The proposed change would allow physicians to prescribe amphetamines in combination with other drugs for the control of cancer pain. While everyone testifying at the hearing supported the amendment, some witnesses suggested modifications in the proposed language, which the board will consider at its next meeting.

According to the Wisconsin Cancer Pain Initiative, amphetamines are useful for treating the sedation induced by opioid analgesics and may also potentiate the analgesic effect of opioids in some patients. The rule change was requested last year by the initiative and the Controlled Substances Board.

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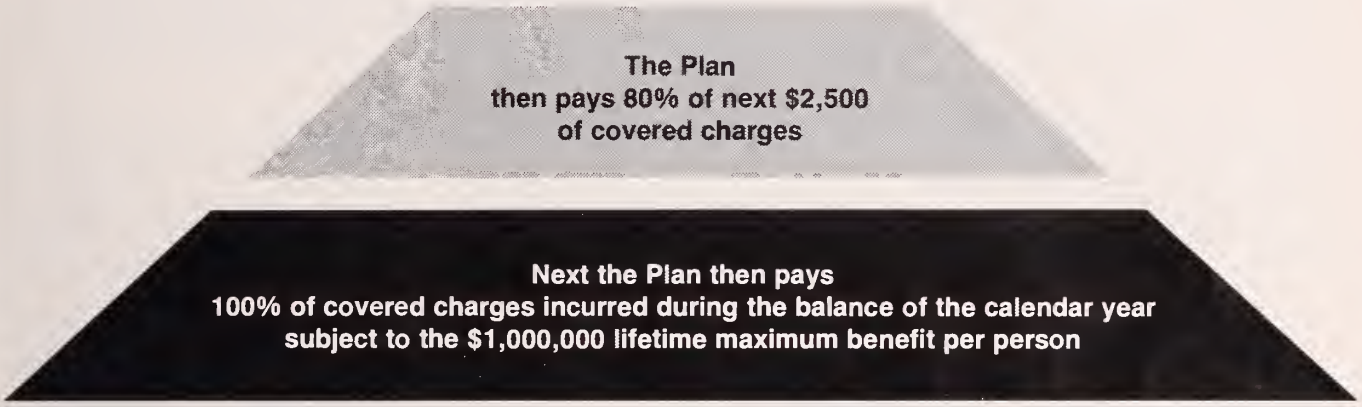

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Physician briefs

Ronald K. Wells, MD,* has been elected chief of the Dept of Pediatrics at Children's Hospital of Wisconsin. Dr Wells is in private practice in Brookfield and is a clinical professor of pediatrics at the Medical College of Wisconsin.

Zenoun O. Abouzelam, MD,* and **A. Sandor Goldstein, MD,*** have joined the staff of La Salle Clinic in Neenah. A thoracic surgeon, Dr Abouzelam received his medical degree from Ain-Shams University School of Medicine in Cairo, Egypt, and completed a residency at the Medical College of Wisconsin in Milwaukee. Dr Goldstein, a native of Montreal, Quebec, received his degree from McGill University in Montreal and served a residency at the University of Toronto. He also served a fellowship in cardiovascular surgery at Toronto General Hospital and has been in private practice in California.

Susan J. Carson, MD,* a family practice physician, recently joined the Dells Clinic in Wisconsin Dells and the medical staff at St Clare Hospital in Baraboo. Dr Carson graduated from the University of Wisconsin Medical School in Madison and completed a family practice residency at St Mary's Hospital in Milwaukee.

Robert F. Burgfechtel, MD,* was recently named director of medical services in The Prudential's North Central Group Operations in Minneapolis. Dr Burgfechtel received his medical degree from the University of Iowa and served an internship at Hurley Hospital in Flint, Mich. Most recently he served as medical director of the Red Cedar Clinic in Menomonie.

Duane M. Koons, MD, a family practice physician, recently joined the staff of the Vig-Gundersen Clinic in Viroqua. He previously was with the North Carolina Family Doctor in Chapel Hill. Dr Koons received his medical degree from Wayne State University School of Medicine in Detroit and completed a residency at North Carolina Memorial Hospital in Chapel Hill.

Kenneth A. Zollo, MD,* and **David O. Barger, DO,*** recently joined the General Clinic in West Bend. A pediatrician, Dr Zollo formerly served

Continued on page 48

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as chief of pediatric services at K.I. Sawyer Air Force Base in Michigan. He received his medical degree from Columbia University College of Physicians and Surgeons in New York City. Dr Barger received his degree from the Chicago College of Osteopathic Medicine and previously served as staff general surgeon at Chanute Air Force Base in Illinois.

Virginia A. Updegraff, MD, recently joined the staff of the Rhinelander Medical Center. Dr Updegraff received her medical degree from Women's Medical College of Pennsylvania in Philadelphia and completed a residency at Meadowbrook Hospital in Hempstead, NY. She previously was with the Indian Health Service in Sisseton, SD.

Michael Wenman, MD, has joined the Marshfield Clinic-Lakeland Center as a specialist in emergency medicine. Dr Wenman graduated from the University of Wisconsin Medical School and completed a residency at Hennepin County Medical Center in Minneapolis. He most recently was a public health physician in Warrensburg, Mo.

Lisa Mink, MD, recently joined the Sparta Clinic. A family practice specialist, Dr Mink received her medical degree from Washington University in St Louis, Mo, and completed a residency at the University of Wisconsin and St Mary's Hospital in Madison. She practiced for the past three years at the Lovejoy Health Center in Albion, Maine.

Ronald J. Cooper, MD,* has joined the Tomahawk Medical Center, a division of Rhinelander Medical Center. Dr Cooper received his medical degree from the Medical College of Wisconsin in Milwaukee and completed a residency at Good Samaritan Medical Center. He is a family practice specialist.

Christopher J. Sullivan, MD, was recently appointed assistant professor of medicine and clinical coordinator of the HIV-AIDS program at the Milwaukee County Medical Complex. Dr Sullivan was previously with the University of Minnesota, where he trained and worked in the AIDS Clinical Trial Unit, which is sponsored by the National Institutes of Health.

James D. Michael, MD,* has retired from the Sheboygan Clinic after practicing in the Sheboygan area for 29 years. Dr Michael received his medical degree at Washington University School of Medicine in St Louis and served an internship at Barnes Hos-

Continued on page 50

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pital, also in St Louis. He completed a residency in internal medicine at Cincinnati General Hospital.

Francis X. McCann, MD,* has joined General Clinic in West Bend. A specialist in internal medicine, Dr McCann received his degree from St George's University School of Medicine in Grenada and served a residency at Sinai-Samaritan Medical Center in Milwaukee.

Thomas E. Goodrich, MD,* recently opened his practice at St Luke's Hospital Medical Office Building in Racine. Dr Goodrich graduated from the University of Illinois College of Medicine and completed a residency at Southeastern Family Practice, which is affiliated with the Medical College of Wisconsin. He is a family practitioner.

John E. Midtling, MD, was recently appointed chair of the Department of Family Medicine at the Medical College of Wisconsin. Dr Midtling received his medical degree from the University of Minnesota School of Medicine and served a residency in family practice at the university's affiliated hospitals. Most recently, he served as vice chair of the Department of Family and Community Medicine at the University of California, San Francisco.

Kevin G. Carr, MD,* a family practitioner, has joined Doctors Park Physicians in Platteville. Dr Carr graduated from the Medical College of Wisconsin. He completed a residency in family practice at the University of Wisconsin.

A call for photographs

The *Wisconsin Medical Journal* and the SMS Charitable, Educational, and Scientific Foundation are joining forces in an effort to build a photographic library of medicine in Wisconsin. Donations of current or historical photos relating to medicine—persons or places, equipment or events—are welcome and tax deductible. All donated photos will become the property of the Fort Crawford Medical Museum, which is owned and operated by the foundation, and may be used to illustrate future issues of the *Wisconsin Medical Journal.* Send your photos to: Thomas L. Adams, State Medical Society of Wisconsin, PO Box 1109, Madison, WI 53701-1109.

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Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Suppiled: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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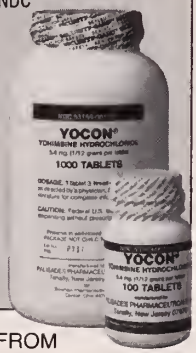

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INDICATIONS AND USAGE: BECAUSE OF REPORTS OF INTESTINAL AND GASTRIC ULCERATION AND BLEEDING WITH SLOW-RELEASE POTASSIUM CHLORIDE PREPARATIONS, THESE DRUGS SHOULD BE RESERVED FOR THOSE PATIENTS WHO CANNOT TOLERATE OR REFUSE TO TAKE LIQUID OR EFFERVESCENT POTASSIUM PREPARATIONS OR FOR PATIENTS IN WHOM THERE IS A PROBLEM OF COMPLIANCE WITH THESE PREPARATIONS

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: **Hyperkalemia**—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics: see **WARNINGS**.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS**, **WARNINGS**, and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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Membership update

The following information is being provided from membership reports and from individual members for updating the 1989 Membership Directory as published in the August 1989 issue of the *Wisconsin Medical Journal*. Because of space limitations, address changes and phones numbers will not be included in this update, although they will be changed in the SMS membership records.

County transfers will be included when processing has been completed by the membership records staff.

Changes in practice specialties (as used by the AMA) and changes in board-certified specialties as listed by the American Board of Specialties (see the August 1989 membership directory) are included. Practice specialties appear before the slash (/) and board-certified specialties appear after the slash.

Allen, MD, Jeffrey S.
1004 E Sumner St
Hartford, WI 53027

Balin, MD, Adam H.
753 N Main St
Oregon, WI 53575
FP

Beresky, MD, Ronald E.
1313 Fish Hatchery Rd
Madison, WI 53715
GS/GS

Bermudez, MD, Eduardo R.
Rte 5, Box 706
Richland Center, WI 53581
FP EM/FP

Bottner, MD, Wayne A.
1836 South Ave
La Crosse, WI 54601
HEM ON/HEM

Brocker, MD, Brian P.
5320 Lake Mendota Dr
Madison, WI 53705
FP

Cheung, MD, Hoi-Yin
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Delavan, WI 53115
IM/IM

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Merrill, WI 54452
GS

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20 S Park St, #202
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Madison, WI 53715

Eggener, MD, Brian J.
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P

Glick, MD, John W.
600 Highland Ave
Madison, WI 53792
P

Hazel, MD, Dana K.
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Madison, WI 53792
P GER/IM

Hellman, Barry D.
279 S 17th Ave
West Bend, WI 53095
D/D

Hurley, MD, Randolph W.
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IM

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PO Box 1002
Elkhorn, WI 53121
N

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Skokie, IL 60076
AN

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West Bend, WI 53095
P CHP

Marshall, MD, Harry J.
123 16th Ave, S
Onalaska, WI 54650
PD/PD

McCann, MD, Francis X.
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West Bend, WI 53095
IM

Mc Hugh, MD, Ruth M.
1232 Phoenix St
Delavan, WI 53115
OBG

Mc Lean, MD, Andrew J.
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P

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1000 N Oak Ave
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AI IM/IM

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Milwaukee, WI 53210

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Madison, WI 53703
D IM/IM

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East Troy, WI 53120
IM

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PDC

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IM/IM

AMA study finds physicians favor collective bargaining

Three fourths of physicians recently polled by the AMA said they favored collective bargaining rights for salaried physicians. In the survey, which was published in a recent issue of *AM News*, 17% said they opposed collective bargaining rights, and 8% were unsure. Further, more than half of those surveyed (52%) said physicians should have the right to strike if negotiations break down between management and the physicians' collective bargaining agent; 41% said they opposed the right to strike, and 7% were unsure. The survey of 1,000 physicians was conducted by the AMA Office of Issue and Communications Research.

Obituaries

Gonzalo Geroso, MD, 59, of Two Rivers, died July 21, 1989, in Marshfield. Born Jan 11, 1920, in the Philippines, Dr Geroso graduated from Santo Thomas University Medical School in Manila and completed his residencies in Fargo, ND, Chicago, and Elyria, Ohio. He practiced in Lihue, Hawaii, for 13 years. For the past nine years, Dr Geroso was in the department of family practice at the Two Rivers Clinic. Surviving are his widow, Suzanne; two daughters, Amy and Shannon, and a son, Eric, of Spokane, Wash.

Joseph C. Schaefer, MD, 73, of Shreveport, La, died July 18, 1989,

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The persons and organizations named below made contributions to the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin during the month of February 1989.

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in Shreveport. Dr Schaefer was born in Green Bay and graduated from the University of Wisconsin Medical School, Madison. He was a veteran of World War II, serving in the US Army. Surviving is his widow, Jean, of Shreveport, La.

Ronald W. Steube, MD, 84, of Naples, Fla, died July 9, 1989, in Naples. Born on Dec 7, 1904 in St Paul, Minn, Dr Steube graduated from the University of Buffalo Medical School and served his residency at the University of Minnesota Hospitals. He served in the US Army from 1940 to 1946. Dr Steube was director of laboratories at St Agnes Hospital, Fond du Lac, and director of the hospital's School of Medical Technology. Dr Steube retired to Naples in 1971. He was a member of the American Society of Clinical Pathologists, College of American Pathologists, International Association of Pathologists, and the Association of Nuclear Medicine. He was a member of the Fond du Lac County Medical Society, serving as its president in 1953, as well as both the SMS and the AMA. Surviving are his widow, Helen, and one son, Richard, of Fort Lauderdale.

Kenneth L. Matson, MD, 77, of Sun City, Ariz, died July 1, 1989, in Sun City. He moved to Arizona 12 years ago from Shell Lake. Born Nov 17, 1911, in Aberdeen, SD, Dr Matson graduated from Rush Medical School, Chicago, and served his internship at St Luke's Hospital, in Chicago. He completed his residency at Augustana in Chicago and at the University of Pennsylvania Graduate School. He served in the US Army from 1941 to 1946. Dr Matson practiced in Chicago until 1969 when he moved to Shell Lake, where he was chief of surgery at the Indianhead Memorial Hospital. Dr Matson was a member of the American College of Surgeons. He also was a member of Barron-Washburn-Burnett County Medical Society, the SMS, and the AMA. Surviving are his widow, Genevieve; two sons, Kenneth, Jr, of Winter Park, Fla, and Peter, of Springfield, Ill.

Herbert C. Miller, MD, 91, of Racine, died July 17, 1989, in Cudahy. Born Nov 14, 1897, in Racine, Dr Miller graduated from Marquette University School of Medicine, and served his internship at Milwaukee County Hospital. Dr Miller served on the medical staffs of St Mary's Hospital and St Luke's Hospital, Racine. He was a member of the Racine County Medical Society, the SMS, and the AMA. Surviving is his widow, E. Margaret.

Tributes to loved ones can help others

The memorial program of the Charitable, Educational and Scientific Foundation of the SMS offers physicians a unique opportunity to provide a living memorial to a loved one or friend through a gift to the foundation. A memorial contribution can provide financial aid to a needy medical student, help stimulate research on behalf of public health or aid in the preservation of Wisconsin's medical history. When a memorial gift is made to the foundation, the deceased person's family receives a special card with the name of the donor. For more information, contact the foundation staff at the SMS.

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The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

West Bend, Wisconsin. Seeking full-time and part-time emergency physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation malpractice insurance provided and benefit package available to full-time staff. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, #36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p10/89

Internist (BC/BE) needed by growing multi-specialty group to join ten-member department at two suburban locations. The clinics are well-established with comprehensive on-site diagnostic services. Attractive benefit package with guaranteed salary and partnership potential in one to two years. Please send CV in confidence to: Administrator, Harwood Medical Associates, SC, 12011 W North Ave, Wauwatosa, WI 53226. 10–11/89

Dermatologist, psychiatrist, allergist, internal medicine. A progressive 126-bed two-hospital system is seeking the above specialists to establish practices in the Iron Mountain area of Michigan's upper peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, C02 laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4500. 10–11/89

Internal medicine and family practitioner BC/BE, to join a progressive 12-physician group practice in July 1990. Rural college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. c10tfn/89

Radiologist. Three board-certified radiologists in Beloit, Wisconsin, seek a fourth for an active diagnostic and interventional practice in a community hospital, multi-specialty clinic, and private office. All imaging modalities are represented. The hospital is affiliated with the University of Wisconsin. Enjoy a great practice not far from Madison, Milwaukee, and Chicago. Write or call Thomas J. Lisk, MD, Beloit Radiology, Ltd, 1969 West Hart Rd, Beloit, WI 53511; 608-364-5266 or 815-623-6010. An excellent opportunity. p10–12/89

Internist—BC/BE. Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs or subspecialists in internal medicine. Send CVs to Michael Sergi, MD, 14 North Main St, Fond du Lac, WI 54935. p8–12/89;1/90

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

Physicians Exchange

continued

Pediatrician, Ob/Gyn, psychiatrist, family practitioner, general surgeon. Growing 16-physician, multi-specialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity after one year. Come grow with us! Contact John T. Henningsen, MD, Indianhead Medical Group, Ltd, 1020 Lakeshore Dr, Rice Lake, WI 54868; ph 715-234-9031. 8–10/89

Family practice. Exciting family practice opportunity available for (BC/BE) family physician at satellite location of expanding multi-specialty group. Due to the impending retirement of two general internists at satellite location, an established base of patients is available for two family practitioners to begin a practice and develop a department. The clinic has an excellent reputation, highly motivated support staff with diagnostic services available on-site. Interested candidates please send CV in confidence to: Administrator, Harwood Medical Associates, SC, 12011 W North Ave, Wauwatosa, WI 53226. 10–11/89

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Black River Falls, WI
An excellent opportunity exists for two BC/BE family practitioners to join a quality nine-physician, multi-specialty group as a result of increased demand for services. Black River Falls is the gateway to beautiful Indianhead vacation country. The clinic provides medical technology equal to that in urban settings in a small community where we treat our patients like neighbors, not numbers. Call is equally shared with first call weekend coverage provided by the hospital. We offer a small-town friendly atmosphere with excellent compensation guaranteed and time off to enjoy your family and hobbies. Metropolitan areas are easily accessible within one hour via interstate highway. Send CV or contact John M. Drace, Administrator, 610 W Adams St, Black River Falls, WI 54615; 715-284-4311. 8–10/89

Antigo, Wisconsin. Seeking director, full-time and part-time emergency physicians for low volume facility located in sportsman's paradise. Excellent compensation and paid malpractice insurance. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, #36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p10/89

Manitowoc, Wisconsin. Multi-specialty group of 18 physicians seeking BC/BE internal medicine, OB/GYN, and oncology specialists. First year salary guarantee with ownership potential after first year. Excellent fringe benefit package. Please send current curriculum vitae to James A. Robinson, Administrator, Manitowoc Clinic, 601 Reed Ave, PO Box 1270, Manitowoc, WI 54221-1270. 10–12/89

Physician position. An academic professional staff position for a primary care physician is available at the University of Minnesota Boynton Health Service, a comprehensive outpatient facility serving a population of 40,000 students, faculty, and staff on the Twin Cities campus. Eighteen full-time equivalent physicians, four nurse practitioners, and 15 registered nurses are on staff. The physician would be seeing adult and pediatric patients in our General Outpatient Clinic on an appointment basis and on a walk-in basis in Urgent Care. Specialty consultations available on-site. Lab and x-ray facilities are also available on-site. Continuing medical education, quality assurance review and clinic accreditation provided. The position requires an MD degree, board-certification or eligibility in a primary care specialty, and license to practice in Minnesota. Must have a broad range of medical abilities and relate well to an educated, health-conscious clientele. Salary competitive and commensurate with training and experience. Regular hours and excellent fringe benefits including paid professional liability insurance. Position available December 1, 1989, but no later than February 15, 1990. Please send resume and three letters of reference by November 10, 1990, to Donald Severson, MD, Chair, Physician Search Committee, University of Minnesota, Boynton Health Service, 410 Church St, SE, Minneapolis, MN 55455. For further information, call Dr Severson at 612-624-2933. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. 10/89

NEW PHYSICIANS
FOR WISCONSIN
is seeking
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- Pediatricians
- Orthopedic Surgeons
- Internists
- General Surgeons

Contact: Fred Moskol
UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
608/263-7933
7–12/89;1–6/90

Beaumont Clinic, Ltd, (a 22-physician multi-specialty clinic) seeks a BC/BE internist to join a five-physician general internal medicine department. Beaumont Clinic, Ltd, offers a modern, well-equipped facility including in-house laboratory, x-ray, stress testing, EKG, PFT, and mammography. Other specialties represented include general surgery, OB/GYN, pediatrics, pulmonary, hematology, allergy, and family practice. Green Bay is a regional medical center offering state-of-the-art facilities, equipment, and sub-specialty referral staff. Salary guarantee with incentive. Excellent benefits. Send letter of introduction, curriculum vitae, and three references to Director of Recruitment, Beaumont Clinic, Ltd, 1821 S Webster Ave, Green Bay, WI 54301. 10–12/89

Orthopedic surgeon. A progressive 126-bed two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's upper peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr Roberts will guarantee $200,000 plus malpractice insurance, office space, CME, vacation and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4500. 10–11/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Northern Wisconsin
Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Physicians Exchange

continued

Family practice opportunities in a group setting. Located in a family-oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, president & CEO, Clintonville Community Hospital, 35 N Anne St, Clintonville, WI 54929; ph 715-823-3121. p7–12/89

Rheumatologist—the Racine Medical Clinic, a 37-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Wisconsin. OB/GYN (BC/BE) needed to join dynamic HMO-based multi-specialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringes. We take pride in our patient care. Contact Stuart R. Lancer, MD, Group Health Cooperative, 1030 Regis Court, Eau Claire, WI 54701; ph 715-836-8552. c4;p5–7;8–10/89

Family practitioner to join a progressive 12-physician group practice. Rural, college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. 2tfn/89

Family practice. 37-physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

For sale. S1. used Midmark III electric table less than 20% of cost—you pick up. Ph 319-556-3646, Monday—Friday. 9–11/89

Northern Wisconsin
Family Practice physician to join multispecialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Practice for sale. Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, WI 53122. 8tfn/89

For sale. Independent, well established, busy family practice in 56,000 population west central Wisconsin city. Patient records and medical equipment. Excellent base of prepaid medical patients. Two excellent open staff hospitals. Contact: Patrick J. Bates, MD, 1524 Bellinger St, Eau Claire, WI 54703; ph 715-835-9678. 10–11/89

Medical Meetings—Continuing Medical Education

November 2, 1989: 27th Annual Teen Health Workshop, Oshkosh Convention Center, Oshkosh. 9–10/89

November 26–December 1, 1989 (Illinois): 75th Scientific Assembly and Annual Meeting of the Radiological Society of North America, at McCormick Place in Chicago. 7–10/89

December 6–8, 1989: *Neurology for the non-neurologist.* The Ambassador West Hotel, Chicago, Ill. Contact: Office of Continuing Medical Education, Rush-Presbyterian-St Luke's Medical Center, 600 S Pauline, Chicago, IL 60612; ph 312-942-7095. 10/89

GREAT LAKES — OB-GYN / Internal Medicine / Gastroenterology / Family Practice / General Surgery — Attractive opportunities in *Wisconsin, Indiana, and Michigan* for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions at 1-800-243-4353 (in Milwaukee call 243-9500).

Strelcheck & Associates, Inc.
12724 N. Maplecrest Lane
Mequon, WI 53092

Family practitioner to join three physician group in Lake Mills on Interstate 94 and beautiful Rock Lake in southern Wisconsin. Resort area. Competitive salary and fringe benefits. Contact H. Leering, MD, 120 E Oak St, Lake Mills, WI 53551; ph 414-648-2391. p6–10/89

1990 CME CRUISE/CONFERENCES ON MEDICOLEGAL ISSUES AND SELECTED MEDICAL TOPICS. Caribbean, Bermuda, Alaska/Canada, New England, Scandinavia, W Mediterranean, Europe, Asia, Trans Panama Canal. Approved for 20-28 CME Category 1 credits (AMA/PRA) and AAFP prescribed credits. Distinguished lecturers. Excellent group fares on finest ships. Pre-scheduled in compliance with IRS requirements. Information: International Conferences, 1290 Weston Rd, #316, Ft Lauderdale, FL 3326; ph 800-521-0076 or 305-384-6656. p10–11/89;1/90

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THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

OTHER MEETINGS in the United States are published in the first issue of each month of the *Journal of the American Medical Association.*

Medical Meetings—Continuing Medical Education

continued

AMA

December 3–6, 1989: Interim House of Delegates, Honolulu.
June 24–28, 1990: Annual AMA House of Delegates, Chicago.
December 2–5, 1990: Interim House of Delegates, Orlando.
June 23–27, 1991: Annual AMA House of Delegates, Chicago.
December 8–11, 1991: Interim House of Delegates, Las Vegas.
June 21–25, 1992: Annual AMA House of Delegates, Chicago.
December 6–9, 1992: Interim House of Delegates, Nashville.
June 13–17, 1993: Annual AMA House of Delegates, Chicago.
December 5–8, 1993: Interim House of Delegates, New Orleans.

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Army Reserve Medicine 39
Bell Atlantic TriCon 40
City of Milwaukee 46
Eli Lilly & Co 37
Humulin®
Group Health Inc, Minnesota 6,7
HMO of Wisconsin 5
Key Pharmaceuticals, Inc 51,52
K-UR™20
Medical College of Wisconsin 49
Physician Resource Network
Medical Protective Company 41
Merck Sharp & Dohme . . . . . IBC,BC
Vasotec®
Milwaukee Psychiatric Hospital 11
Palisades Pharmaceuticals 51
Yocon®
PBBS Equipment Corp 4
Physicians Insurance Company of Wisconsin 47
Shearson, Lehman & Hutton . . . . . IFC
S&L Signal Company 46
SMS Services 45
StrategiCare 9

Contributions to the CES Foundation

of the State Medical Society of Wisconsin

provide support to the following:

- **Student loans**
- **Operation of the Fort Crawford Medical Museum**
- **Charitable assistance**
- **Medical student externship program**
- **Research activity**
- **Continuing medical education**

Contributions are tax-deductible

Checks should be made payable to: CES Foundation, and sent to CESF, State Medical Society of Wisconsin, PO Box 1109, Madison, Wisconsin 53701.

State Medical Society of Wisconsin

Dates and locations of
ANNUAL MEETINGS
1989–1993

All meetings will be held in Milwaukee at the Milwaukee Exposition and Convention Center and Arena (MECCA) and the new Hyatt Regency as the headquarters hotel, unless otherwise indicated.

1990—April 26–28: Green Bay Convention Center, Embassy Suites
1991—April 18–20: Milwaukee Wyndham Hotel
1992—April 23–25
1993—April 15–17: La Crosse Convention Center, Radisson
1994—April 14–16: Milwaukee

Meetings days will be Thursday and Friday; the first session of the House of Delegates will convene on Thursday, the second and third on Friday. Scientific programming will be on Friday and Saturday.
Further information: Commission on Continuing Medical Education, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701. Local Telephone: 257-6781; toll-free in Wisconsin: 1-800-362-9080.

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VASOTEC®

(ENALAPRIL MALEATE/MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema*: Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function*: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions*.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients.

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*), cardiac arrest, pulmonary embolism and infarction, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Vasculitis, muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia; an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension*: In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects*.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions*.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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Wisconsin Medical Journal

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Representative Urban, MD speaks out

V. 88, NO. 11

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November 1989 Vol. 88 No. 11

Opinions

5 *Secretary's report*
An overview of the issues
by Thomas L. Adams, Madison

Editorials

8 Euthanasia and the British Medical Association
by John P. Mullooly, MD, Milwaukee

12 The relation of the holocaust to bioethics
by Richard W. Edwards, MD, Richland Center

14 Something especially good is happening
by Jeffrey H. Lamont, MD, Wausau

14 *Soundings*
My first 50 years at Columbia Hospital
by Herbert W. Pohle, MD, Milwaukee

Scientific

17 The pathologist's view of Lyme disease
by Anthony G. Hejka, MD, Douglas M. England, MD, John L. Schmitz, MS, and Ronald F. Schell, PhD, Madison

21 The *provisional normal* MSAFP screen
by Paul Meier, MD, June Cole, PhD, and Stephen Wagner, MD, Marshfield

24 Cardio-pulmonary resuscitation in a community hospital
by Guenther P. Pohlmann, MD, Milwaukee

29 Pregnancy in lymphocytic hypophysitis: case report and review
by James C. Brandes, MD, and James M. Cerletty, MD, Milwaukee

Socioeconomics

33 A doctor in the House: Rep Urban, MD, speaks out

40 *Public health*
Publicity, policy and trends in cigarette smoking: Wisconsin 1950–1988
by Dan E. Peterson, MD, and Patrick L. Remington, MD, Madison

Organizational

43 Physician briefs
44 County society news
48 Membership update
48 Obituaries
51 Authors' instructions

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Created by the Territorial Legislature in 1841 and now representing nearly 7,000 member physicians, the Society's purpose is to "bring together the physicians of the State of Wisconsin to advance the science and art of medicine and the better health of the people of Wisconsin, and to secure the enactment and enforcement of just medical laws." The major activities of the Society concern medical education, peer review, legislation, community health education, scientific affairs, socioeconomics, health planning, service to physicians, operation of the Charitable, Educational and Scientific Foundation, and publication of the *Wisconsin Medical Journal*.

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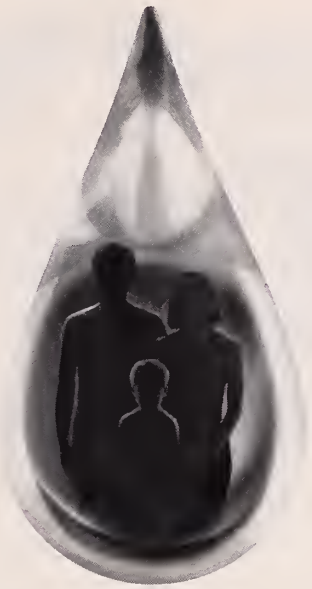

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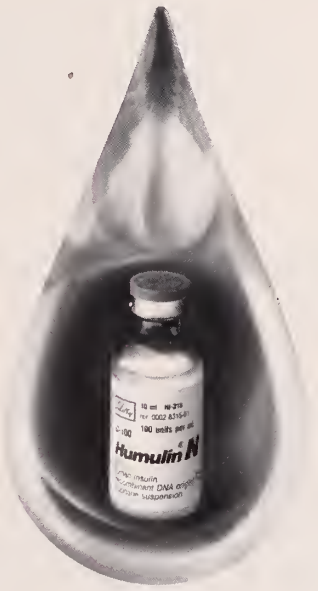

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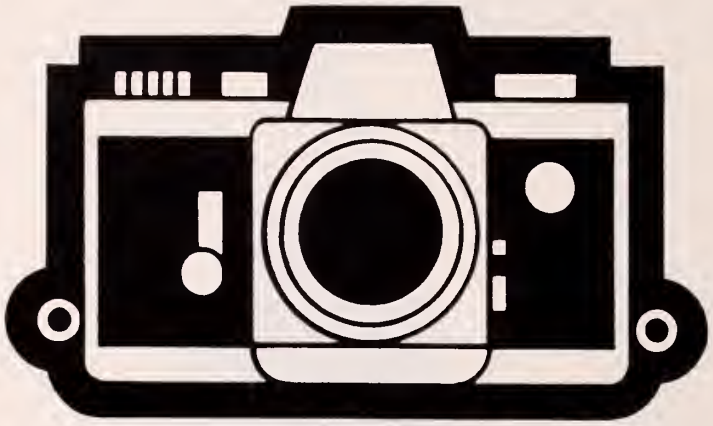

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Deadline: All entries must be postmarked no later than February 15, 1990. Send entries to: Photo Contest, *Wisconsin Medical Journal*, PO Box 1109, Madison, WI 53701.

Secretary's report

An overview of the issues

I'VE HAD THE OPPORTUNITY to speak to a number of physician groups around the state lately, including an address at the Fall Medical Issues Conference in October. Some of the thoughts I've been sharing seem to bear repeating, so I offer you the following summary:

The course of medicine in Wisconsin for the rest of this century, and for the early part of the next, will most likely be set by the decisions that are made in Madison and in Washington in the next two years. This flurry of decisions will swirl around issues such as mandatory Medicare assignment, the RBRVS, and the plight of the uninsured, to name just a few. What's more, decisions made on these issues drift into other areas of concern and affect such things as physician supply and recruitment, health care affordability and availability, and the economic strength of Wisconsin's rural health care facilities and the communities they serve. Obviously, the next 24 months will have profound implications for your practice and for the health of all Wisconsin.

The half-million uninsured and under-insured residents of Wisconsin, and 37 million just like them around the country, loom as the premiere issue in the coming days. While the American health care delivery system is the finest in the world, and Wisconsin's is surpassed by none, we must ensure access to health care for those who must now play a game of medical Russian roulette with the physical and financial well-being of their families. Your State Medical Society has taken the lead on this issue, and is confident that responsible answers can be found, but all of medicine must remain vigilant. The health of our neighbors and fellow citizens is too precious to be relegated to the bureaucratic morass of yet another government program. (More about this in next month's *WMJ.*)

Liability reform has been, and will remain, a front-burner issue for the profession and for the Society. The problems of constantly rising medical liability insurance costs, however, are infinitely complex, and no single solution is apparent. Your society has joined with community leaders around the state to call on the governor and majority leaders in both houses to hold a special session to deal with the crisis.

Our battles on this front are long and belligerent; our opponents are strong and sometimes deceitful; and our victories are as hard-fought as they are elusive. While we remain confident, we recognize that winning a trench war such as this will require as much patience and stamina as it will strength and cunning.

As important as liability reform is, however, more immediate, and perhaps more permanent, relief from crushing costs to both physicians and patients can be achieved with sound risk management and the prudent use

Thomas L. Adams

of practice parameters. These are two areas in which physicians can truly seize control of medicine's future. The medical profession is stepping up its efforts to develop scientifically sound and clinically relevant practice guidelines in an attempt to improve the quality of care and reduce costs by eliminating unnecessary, outmoded or ineffective procedures. Twenty-four national medical societies are actively involved in practice guideline development and at least ten more are planning to become involved.

The importance of risk management and practice parameters is in the depth of opportunity for active physician initiative and involvement. The danger is that, without physician involvement, your parameters will be set and risks will be managed by those

Continued on next page

Continued from preceeding page
who may not be physicians, may not have your patients' best interests in mind, and may have less than noble motives. The benefits are that practice parameters and risk management, if created and implemented by physicians, can have direct, positive effects on the quality of health care delivered, the cost of liability insurance, the health of your patients and the image of your profession.

Physicians also need to become more involved in attracting young men and women to the practice of medicine. The number of applicants to US medical schools has dropped for six years running, and in our current market the trend is away from the profession with the highest tuition and longest training time—especially when that profession suffers disparaging remarks from some of its own practitioners. Intelligent, motivated young men and women who might otherwise enter medical school are hearing the gloomy reports, wondering whether medicine is worth the time, expense and hard work, and are deciding to go instead into other fields of science, as well as business, engineering and law.

Frankly, discouragement and pessimism about the profession are not appropriate responses. Despite some challenges—some annoying, some serious; some persistent, and some immediate—physicians are still mending the injured, healing the sick and comforting the distressed. Physicians remain among the most educated, the most respected, the most admired, and the best compensated members of their communities. Medicine is still an honorable profession offering an incomparable blend of spiritual, intellectual, social and material rewards.

This is a time for all physicians to show their pride, in themselves and in their colleagues, and I urge each of you to encourage all the fine, bright young people in your lives—male and female, rich and poor, majority and minority—to follow your example and pursue a life of medicine.

Young people are not the only folks physicians need to talk to about medicine. All of your patients need to understand that the affordability, the availability, and even the quality of their health care can be dramatically, adversely effected whenever government officials try to practice medicine without license. All of your patients need to understand that the issues we're discussing here today can have intimate impacts on their lives. And all of your patients need to understand that you need their help in winning these battles in Madison and Washington. They do not yet comprehend these self-evident truths, nor will they—unless you explain it to them. It's one thing for the profession to speak through national, state, county and specialty societies, but it's quite another thing when it's just you and them, person to person. You're their doctor; they trust you.

Individual efforts support the collective mission, and together our effect is magnified. Will we always agree among ourselves? Of course not, nor should we. Mass devotion to a single mindset is neither necessary nor desirable for an association of physicians, and would likely have disastrous results. The beauty of a democratic organization like your Society is that there is room for a wide range of opinions and interests, as well as forums for their expression in word and vehicles for their expression in deed. While diversity is a life-sustaining virtue of this Society, fueling much of its intellectual vigor, we must not let the heat of temporary disagreement nor the peculiarities of a particular problem distract us from the larger mission and make us vulnerable to those outside the profession who would divide and conquer.

I wish I could say that with skilled staff and involved physicians, all will be well. It would be nice to tell you that the future holds nothing but the best for Wisconsin's physicians and their patients. But I can't do that. It is my responsibility to warn you that the future will require a great deal of hard work, and that despite that hard work, we are still likely to lose a number of battles. There are competing interests in society—even some who hold malice toward medicine—and they are as well organized, well financed, and well schooled in politics and persuasion as we. We won't win them all, but if we maintain ourselves as a vigorous association, we will win our share. With luck, we'll win the most important.

Hippocrates said that healing is a matter of time, but is sometimes also a matter of opportunity. We are now in an era of the later: our opportunities to heal the wounds of the profession are many, but our time is short. Now is the time to strengthen our bonds, shore up our courage, and charge forward with a clear vision for the future.

Opinion policy

Opinions expressed in the Voice of the SMS section reflect the official policy of the State Medical Society of Wisconsin.

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Editorials

Euthanasia and the British Medical Association

While the AMA and the SMS have officially condemned euthanasia, it is interesting to see the reactions of other medical associations in recent years. In Great Britain, the euthanasia movement has not gotten much support because of the success and favorable publicity of the hospice movement. The hospice movement has effectively undermined the arguments of the Right to Die Society for the direct termination of life to avoid pain and suffering of the dying patient. In a refreshing statement recently issued by the British Medical Association, its Working Party on Euthanasia had the following to say:

- Some patients see death as the fitting conclusion to the events of their life. These people may wish neither to hasten their death, nor to deter it. For them, death is a mystery which they approach with tranquility. There are limits to medical science and it is inappropriate for doctors to insist on intruding in these circumstances.
- There is a distinction between an active intervention by a doctor to terminate life and a decision not to prolong life (a non-treatment decision). In both of these categories there are occasions on which a patient will ask for one of these courses of action to be taken and times when the patient could say but does not. There are also occasions where the patient is incompetent to decide.
- An active intervention by anybody to terminate another person's life should remain illegal. Neither doctors nor any other occupational group should be placed in a category which lessens their responsibility for their actions.
- In clinical practice there are many cases where it is right that a doctor should accede to a request not to prolong the life of a patient. Appropriate medical skills and techniques should be offered to patients when there is a good chance of providing an extension of life that will have the quality that the patient seeks.
- Patient autonomy is a crucial aspect of informed patient care. This is achieved most successfully where a trusting and open relationship between the doctor and the patient allows participation in decisions about illness and its treatment. Doctors should regard patients as authorizing treatment and should respect those authorizations and any decision to withdraw consent. But autonomy works both ways. Patients have the right to decline treatment but do not have the right to demand treatment which the doctor, in conscience, cannot provide. An active intervention by a doctor to terminate a patient's life is just such a treatment. Patients cannot and should not be able to require their doctors to collaborate in their death. If a patient does make such a request, there should be a presumption that the doctor will not agree.
- More important than the debate about the limits of autonomy is the need for doctors and everyone else who is involved in the care of the terminally ill, to communicate with their dying patients. Doctors need to be able to elicit the fears of dying patients and to discuss and answer those fears. They need to be able to discuss terminal care openly so that patients can see that they will not be abandoned and left helpless in the face of terminal disease. Only if such communication and good treatment become the norm can society expect to dissipate the pressure to force doctors to do things the medical profession should not accept.
- The killing of an individual who is certain to suffer severe pain, and to be isolated from human warmth and compassion as they die, is held by some to be very similar to the situation of a terminally ill patient. In the hypothetical case of the person trapped in a hotel fire there may appear to be no alternative to a decision to intervene actively to end the person's life. This applies equally to the actions of army doctors in Burma in the second world war. Today, however, terminal medical care is offered by individuals and groups dedicated to the relief of suffering and respect for the feelings and worth of the dying patient. These aims are achieved regularly and with considerable success. The two situations are not comparable.
- Requests from young and severely disabled patients for a doctor's intervention to end their life present one of the hardest problems in day to day care. Counselling is essential to reaffirm the value of the person and to counter pressure which may be created by the feeling of being unloved and an embarrassment or inconvenience to those upon whom the patient is wholly dependent. The subtle and dynamic factors surrounding disability and the wish to die make any drastic change in the law unwise for this group of patient.
- Any move toward liberalizing the active termination of a severely malformed infant's life would herald a serious and incalculable change in the present ethos of medicine. Nevertheless, there are circumstances where the doctor may judge correctly that continuing to treat an infant is cruel and that the doctor should ease the baby's dying rather than prolonging it

Continued on page 10

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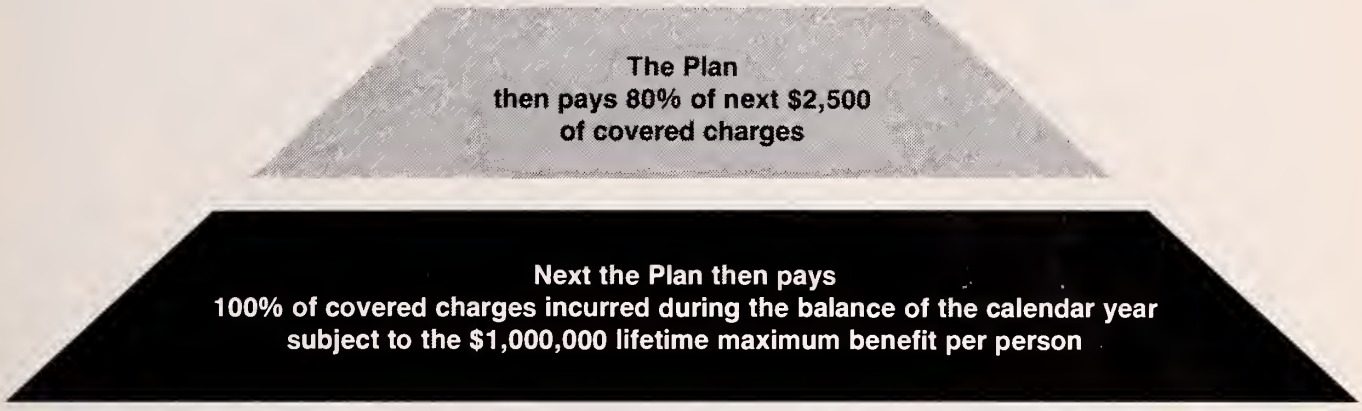

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Continued from page 8

by the insensitive use of medical technology.

- This kind of decision requires careful communication between doctor, parents, nursing staff and other care-givers. It is imperative that the doctor should start from a position which seeks to preserve and value life rather than, on occasion, to judge it as not worthwhile. It is important to stress that the withholding treatment does not preclude loving care for the dying infant. This will, of course, involve relieving the infant's distress.
- An overwhelming majority of those who are rescued from serious suicide attempts, do not repeat their attempts. This means that individuals who make such a decision about their own deaths do not always affirm this in the light of reflection. The techniques developed in the Netherlands mean that the opportunity for reflection is unlikely to be available to a person when a doctor acts to terminate their life.
- Advanced declarations of the type envisaged are not yet recognized as binding by English or, we believe, Scottish law. They may be a valuable guide to the wishes of a patient who can no longer participate in clinical decisions but should not be regarded as immutably or legally binding prescriptions for medical care. They require respectful attention and sensitive interpretation.
- The law's deep seated adherence to intent rather than consequence alone is an important reference point in the moral assessment of any action. A decision to withdraw treatment which has become a burden and is no longer of continuing benefit to a patient, has a different intent to one which involves ending the life of a person. We accept drug treatment which may involve a risk to the patient's life if the sole intention is to relieve illness, pain, distress or suffering.
- Any doctor, compelled by conscience to intervene to end a person's life, will do so prepared to face the closest scrutiny of this action that the law may wish to make.
- The law should not be changed and the deliberate taking of a human life should remain a crime. This rejection of a change in the law to permit doctors to intervene to end a person's life is not just a subordination of individual well-being to social policy. It is, instead, an affirmation of the supreme value of the individual, no matter how worthless and helpless that individual may feel.

These principles represent an adherence to sound moral norms and are consistent with our medical ethics dating back to Hippocratic times.

—John P. Mullooly, MD
Milwaukee

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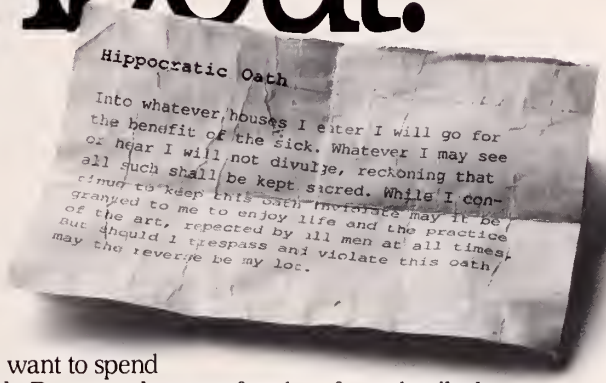

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The relation of the holocaust to bioethics

THE UNIVERSITY of Minnesota recently sponsored a conference on the meanings of the holocaust to bioethics. Susan Vigorito was invited to speak. She is the youngest living survivor of Dr Josef Mengele's horrible medical experiment on twins. Susan Vigorito's recollections of her experiences, while being studied by Dr Mengele, is extremely germane to us today. She said she recalled vividly his incredible ability to divide himself into two people.

Vigorito, who is now 47, lived with her twin, Hannah, for 1.5 years in a wooden cage in Mengele's private laboratory of crematoria No. 2 at Birkenau, one of three death camps at Auschwitz, Poland. The girls were about three years old when they were taken from their family by the Nazis and put under Mengele's care.

Susan remembers that sometimes he would take them out of the cage and talk to them in a very gentle mode and even occasionally held them on his knee. He was calm and acted almost like a father. Later that same day, he would come in, put them on his experimental table and do his cold job.

Vigorito said that despite all the books, movies, articles and news programs about the holocaust, most of the world still refuses to examine its darkest lessons about ordinary people's capacity for evil, evil acts by ordinary people, and in particular the medical professions, which gladly supported and benefited from the Nazi climb to power.

The Minnesota conference wanted to know whether these barbaric acts in the '30s and '40s are relevant for today. Some of the themes common to the Nazis and life in the United States today are of major import: a fixation on cost issues and quality of life in health are two. Others, although minor, are curious. Nazis established no smoking rules for public buildings for example. Another law required bakeries to produce whole grain bread.

When the Nazis ordered the gassing of 70,000 handicapped and retarded people between 1940 and 1941, the important rationale was that the cost of their care drained too many resources from the rest of society. One of the participants at the Minnesota conference said that when a society regularly and systematically confuses economics with ethics, and uses cost benefit analysis as its only tool in forging health policy, it will fail to recognize the danger it is headed for.

A genetics professor from Cologne, West Germany, Benno Mullerhill told the conference that leading scientists and doctors in Germany joined forces with the Nazis in the late 1920s because the party was the only group at that time that would embrace their theories of genetic superiority. The scientists' theory, of course, was not scientific at all but an expression of their personal values. The Nazis' triumphant rise to power set the stage for so-called quality-of-life rulings that first permitted enforced sterilization and eventually the elimination of the handicapped and the mentally ill, all in the interest of the larger community. Later on Jews, Gypsies, homosexuals, and people opposed to the Third Reich policies were gassed or shot.

At Nuremberg, the prosecution argued that the killing programs unfolded from one another, that the genocide of the five millionth Jew was some how unleashed by the morphine overdose given the first harelipped child. This slow evolutionary descent into the intolerable begins with very tolerable steps.

There is a dilemma currently facing physicians and politicians that has become magnified recently by certain events. The dilemma to me is really a question of ethics.

Now there are those arguing for euthanasia on economic and humane grounds here in America. Proof of the concept supposedly comes from Holland where euthanasia has been practiced now for sometime, with 6,000 patients killed by doctors in 1986, with the blessing of government and the medical profession.

California recently had a referendum dealing with euthanasia and other states have considered this possibility. Several states have enacted legislation that calls for the death sentence in convicts to be carried out by lethal injection, and again have asked for the medical profession to help carry out these executions.

The German Nazis were the best educated and the most highly cultured people in the world, and yet they

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allowed the evolution of a mentality that placed anything that was not Nazi German as less than human, and, therefore, nothing. Didn't Josef Mengele think that the twins that he worked upon were nothing? He had to, or he could never have performed those inhuman experiments. From the mentally retarded they progressed to the euthanasia of the elderly (deemed "useless"), and their courts even declared that Jews were not legally persons before the law.

There is a feeling now in some places that if anyone has rights, it is only because *we* decide to give him rights. It may be necessary, in some instances to devaluate certain classes of humans or deny them rights for society to progress, or for the good of the human race in general.

Immediately, if you grant the foregoing, it becomes self-evident that certain classes of humans cannot ever experience that *quality of life*, whatever it may be, according to whatever shifting standards happen to be in vogue at the particular moment in history, that we (whoever *we* are) deem essential. Eliminating them becomes very attractive. Is it right? It provides real benefits to society in general because we are eliminating an unnecessary drain on our resources and are cleaning up the human gene pool. It is very easy. Some justify this course in the name of quality of life. In a mere four decades since Nuremberg we Americans are on the verge of accepting it. We cannot, we must not, consider this course of action.

Physicians, of course, must stand up and say *no*, but the politicians will not listen to the medical profession alone. They must hear it from the public. They must hear you say that life has sanctity. They must hear you say that there is dignity in life. A life ever so small, ever so frail, still has sanctity and dignity, and we should all fight to preserve it. We, as Americans, cannot be pulled into a discussion about the quality of life of a child with congenital deformity, blindness, mental retardation, or the adult with life-threatening disease or terminal illness. Quality of life is not the issue, life is the issue. If your child or loved one were brought comatose to an emergency room would you like to hear them say, "We weren't sure she was alive, so we gave her a painless injection, and besides it set us free to take care of all of these other sick people."

Think about it, and if you agree, and I am sure you must, let your legislators know that we do still treasure life. Mercy killing under any name is still *killing* and will not be tolerated, much less considered in America.

—Richard W. Edwards, MD
Richland Center

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Something especially good is happening

HERE IN WISCONSIN, already a state not widely recognized for ignoring its children, something especially good is happening. It is known as the Emergency Medical Services for Children Project. Its purpose is to improve emergency medical care and services for children in Wisconsin by increasing both awareness and capabilities of providers, parents, and the general public in emergency care for children throughout the state.

In Wisconsin, injuries are the leading cause of death in children ages 1 to 17 years. Injuries kill 240 children and hospitalize 13,200 more in this state each year. In addition, pediatric illnesses such as epiglottitis, septic shock, meningitis, asthma, croup, and seizures present urgent demands for expert medical management. The EMS-C Project will aid pre-hospital personnel in dealing with pediatric emergencies by reviewing mechanisms of illness and injury in children; by reviewing equipment and procedural adaptations for children; and by discussing the psychosocial impact of illness or injury on children and their families. Special attention will be paid to addressing the needs of children at various developmental stages.

By the time you read this, a pilot course for training EMTs in pediatric emergency management will have already been held at Wausau Hospital Center in Wausau. This is the first such program ever offered in the state of Wisconsin and it inaugurates the establishment of training programs statewide.

In addition to the above, public education programs are being developed to help decrease the frequency of serious injury to children; a statewide pediatric emergency communication system is being devised connecting emergency personnel and pediatric emergency physicians anywhere in the state; and, finally, a system of data collection and analysis is being developed to help ensure that pediatric emergency trends are identified and that care administered under the program is as timely and capable as possible.

Perhaps the best thing to come out of the EMS-C Project is the degree of cooperation it has fostered among university, government, and private medical resources. I won't bore you with a long list of participants (or risk inadvertently hurting someone's feelings through an omission). I will just say that the EMS-C task force involves folks from all over Wisconsin pulling together for children.

Wisconsin is only the 12th state to implement such a program. There is no question that statewide effort and cooperation had a lot to do with the project coming as far as it has. Continued statewide physician and hospital support will ensure that the project reaches its full potential.

At a time when medical care in the United States is coming under increasingly critical scrutiny, the EMS-C Project is something to which all medical care providers in Wisconsin can point with pride. For more information on the EMS-C Project, write to the Division of Health, Department of Health and Social Services, PO Box 309, Madison, WI 53701-0309 or call 608-267-6756. Saving little lives for big futures is what EMS-C is all about.

—Jeffrey H. Lamont, MD
Wausau

Soundings

My first 50 years at Columbia Hospital

Herbert W. Pohle, MD, Milwaukee

I'M SURE YOU'VE OFTEN heard older doctors say, "The Golden Age of medical practice is gone!" What they really mean is that they're having trouble adjusting to the changes in the way medicine is practiced. Let me tell you about some of those changes.

Columbia Hospital has grown in size and complexity. The parking lot used to be where the power plant is now. It was small, but we still had room in one corner for a building which housed a few sheep, our source of sheep red blood cells. We even had a flock of rabbits in the attic for pregnancy tests.

The laboratory was small. It didn't do electrolyte levels or blood gases. We didn't need them. We couldn't distort the patients' electrolyte balances as we can now. We didn't have diuretics or thiazides or ventilators, or even total parenteral alimentation. Bacteriology didn't do sensitivities. We didn't need them, either. We had only three antibiotics, sulfanilamide, sulfapyridine, and one injectable, neoprontasil. Imagine practicing medicine without prepared IV solutions.

They were late arrivals in that Golden Age.

The concept of red blood cell mass hadn't yet arrived. Transfusions were direct. The donor was brought to the patient's bedside on a cart. He was connected to the recipient by a rubber tube. Blood flow was controlled with a three-way stopcock. Blood was aspirated from the donor and injected into the recipient by the operator using a 25 cc syringe. A nurse kept score. The procedure may have been crude, but the recipient did have an opportunity to eyeball the donor. If we'd had AIDS then, the recipient would have known who gave it to him.

The critical care concept had to wait till monitors were invented. Even then, the idea didn't appeal to many of our staff. They always fell back to the old argument that "patient segregation causes poor bed utilization."

Somehow, we managed to practice pretty good medicine without ultrasonography, angiography, scans, Holter monitors, endoscopy, nuclear medicine, stress tests, pulse generators, bypass surgery or even angioplasty. When you think about it, there was a lot of gold missing in that age.

Speaking of gold, let me tell you about the most memorable house call I ever made. I chauffeured Dr Pat Rogers, our most elegant cardiologist, and his guest, Dr Paul White, to see a young lady dying of mitral stenosis. His examination completed, Dr White handed me his stethoscope, and invited me to listen. I couldn't believe it, the stethoscope was 18 K gold presented to him by Cambridge instruments! I listened to the murmur: It didn't sound any different with this gold model. Dr White said they were doing a new operation in Boston. It was called a "mitral valvulotomy." He invited us to send our patient to Boston for surgery.

We consulted a gifted and fearless Columbia thoracic surgeon, Dr Forrester Raine. He said, "Hell, don't send that patient to Boston. I've heard about that operation. I've never done one, but there can't be much to it. You just incise the left atrium, stick your finger down through that valve and open her up." We admitted the patient to Columbia and Forrester did just that. The clinical result was remarkable.

This would prove to be the first open heart operation done in Wisconsin. The year was 1952. The patient lived 21 years, and died of congestive heart failure in 1973.

Looking back, I've seen a lot of changes at Columbia Hospital. Many have been good. Some have been bad. Adjusting to them hasn't always been easy. But realize that change is a basic characteristic of all living things, and anything which never changes is probably dead.

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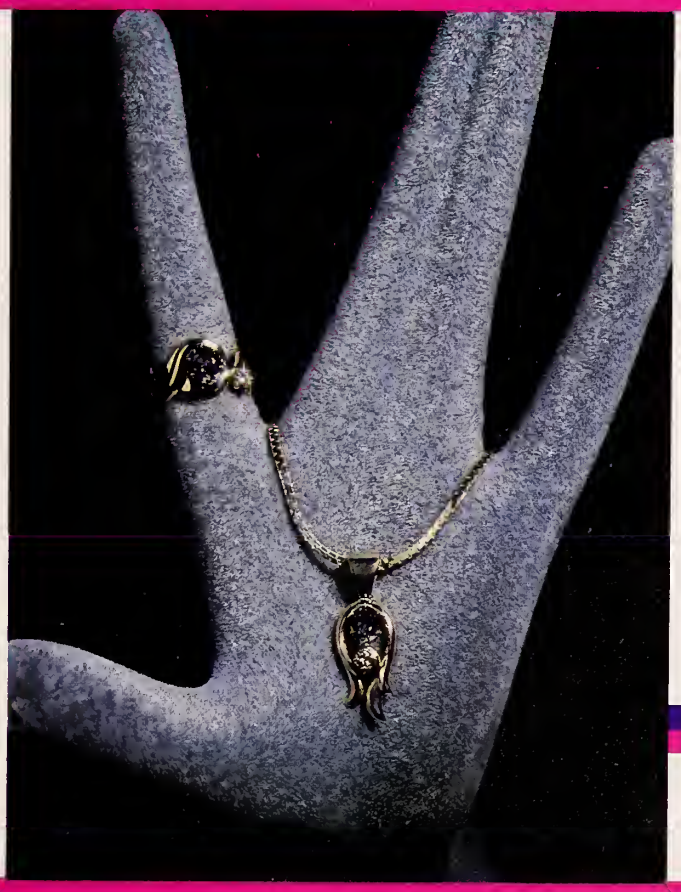

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Deadline: Entries must be received by the *Wisconsin Medical Journal* no later than February 15, 1990: PO Box 1109, Madison, WI 53701

The pathologist's view of Lyme disease

Anthony G. Hejka, MD, Douglas M. England, MD, John L. Schmitz, MS, and Ronald F. Schell, PhD, Madison

Lyme disease is a multisystem disease caused by the spirochete *Borrelia burgdorferi* and is transmitted to humans primarily through Ixodid ticks. The clinical spectrum of the disease is continuing to expand while in its wake the pathology and histopathologic manifestations are being uncovered. We review the pathology of Lyme disease in man beginning with the tick bite. We present the pathologic changes of the rash, erythema migrans, as well as the neurologic, cardiac, and arthritic changes of the disease. We can expand our understanding of the immunobiology of Lyme disease by studying the interactions of *B. burgdorferi* in an experimental animal model. *Wis Med J* 1989;88(11):17–20.

LYME DISEASE is a multi-system infectious disease which begins as spirochetes infect humans through the feeding of primarily *Ixodes dammini*, the deer tick, harboring the spirochete, *Borrelia burgdorferi*.[1] The Ixodes tick is found on both coasts and shows a heavy density in eastern Minnesota and western Wisconsin. In heavily infected areas within Wisconsin, approximately 60% of deer ticks are infected with *B. burgdorferi*.

Ticks are blood sucking arthropods that belong to the same group as mites and spiders. A blood meal is necessary for the tick to molt from either a larva to nymph or nymph to adult. The adults have four pair of legs and no wings. The main differential is distinguishing between soft and hard ticks. This can be done by identifying the mouth parts which are located anteriorly in the hard ticks and ventrally in the soft ticks. The latter are a major problem in veterinary medicine. The hard ticks include the American dog ticks, Rocky Mountain Wood Tick (*Dermacentor variabilis* and *D. andersoni*) and the Lone Star Tick (*Amblyomma americanum*) are referred to as ornate ticks because they have white markings that are easily seen on the dorsal surfaces. Other hard ticks, including deer ticks (*Ixodes dammini*) (Fig 1), do not have these markings and are referred to as inornate ticks. In addition, Ixodes ticks have on their undersurface a U-shaped groove located between the anus and the rest of the body.[2] Furthermore, unengorged adult deer ticks are generally 2–3 mm long (about the size of a sesame seed), but engorged ticks are approximately 1.0 cm in length. The unengorged adult deer ticks are only one half the size of the adult wood tick. The nymphs are about the size of a poppy seed and are the most frequent transmitters of Lyme disease. More extensive studies are necessary to speciate individual ticks (*I. dammini, I. pacificus*, and *I. ricinus*).

Skin manifestations

Quite frequently, patients do not recall being bitten by a tick. Some develop an erythematous papule within 24 to 48 hours at this bite site, which is not the rash of Lyme disease but a transient reaction to the trauma of the tick bite. Infrequently, a biopsy is performed on the site and if the tick is still attached and burrowed into the tissue it may appear in stained tissue sections surrounded by inflammatory cells. Microscopic examination may reveal inflammation and disruption of the epidermis along with adjacent epithelial hyperplasia.[3] Cases wherein patients with Lyme disease undergo unrelated operations, during which tissue is removed, are rare, but can be valuable in studying the systemic histopathology of Lyme disease.

Usually within 30 days after exposure, erythema migrans (EM) may develop near the site of the initial tick bite or on the same extremity but may occur in unrelated sites and be multiple.[4] Approximately 70–80% of patients who are bitten by the tick

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Fig 1.—Note the anterior mouth parts (arrow) and lack of markings on the dorsal surface of Ixodes dammini.

develop the rash. The rash is ovoid, circular, and can enlarge up to 40 cm, with the center of the rash becoming clear. Biopsies of the skin lesion shows nonspecific inflammation, especially around blood vessels. *B. burgdorferi* has been cultured from these lesions,[5] however, because of the low number of spirochetes present in the tissues and the complexity of the culturing system, it is not a technique sensitive enough to be routinely used in clinical settings. Another way of detecting spirochetes is by visualizing them with the help of different staining techniques such as silver stains, immunofluorescence, or immunoperoxidase.

The silver impregnation stains that are used include the Warthin-Starry, Dieterle, and Steiner which are sometimes technically modified.[6,7,8] The Lyme spirochetes will appear black against a yellow background and measure between 5–40 microns in length and about 0.25 microns in width (Fig 2). In clinical tissues, the pathologist must screen numerous high powered fields to find the occasional spirochete either extracellular or intracellularly. The most frequent location of spirochetes in the skin are in the subepidermal areas around the blood vessels and collagenous tissues. Immunofluorescent techniques employ either mono- or polyclonal antibodies which are directly conjugated with fluorescent isothiocyanate. The antibody binds to specific antigens on the surface of the spirochete and when it is excited, one can detect the organisms by its fluorescence. This technique is aptly suited for touch preps and is occasionally applied to paraffin tissue sections with variable success.

A newer diagnostic modality is the detection of spirochetes in tissue sections by the immunoperoxidase techniques. Like immunofluorescence, a primary antibody either mono- or polyclonal directed against antigens of *B. burgdorferi* is employed in an immunologic sandwich technique. Immunoperoxidase methods improve sensitivity and specificity, but are more expensive and technically more demanding. Immunoperoxidase has the added advantage over immunofluorescence as a permanent slide of the immunoreaction is obtained.

Systemic manifestations

Many patients complain of constitutional symptoms such as chills, fever, headache, fatigue, and lethargy which probably coincides with the systemic spread of the spirochetes.[1] The major route is considered to be hematogenous, although spirochetes may travel along the perineural and lymphatic channels. The spleen show features of white pulp follicular hyperplasia both in human and in experimental animal model systems.[9] Similar changes, however, are seen in generalized infections due to many different organisms. Rarely, necrotizing splenitis can be caused by *B. burgdorferi*.[10]

Several weeks to months after primary infection, some patients develop neurologic symptoms such as meningitis, encephalitis, facial paralysis (Bell's palsy), and other conditions involving peripheral and sensory motor nerves.[11] The inflammatory lymphocytes and plasma cells that permeate the meninges are reflected in the spinal fluid and one typically finds a lymphocytic pleocytosis.[12] In addition, the elevated protein and variably decreased glucose supports an inflammatory reaction. These findings are not specific for Lyme disease, so many people advocate spirochetal antibody assays of serum and cerebrospinal fluid in confirming neurologic Lyme disease.[13]

Spirochetes are rarely seen or cultured from the CSF.[1] Invasion of the brain parenchyma has been demonstrated and so have the clinical manifestations of tertiary neuroborreliosis.[14,15] Others have postulated cerebrovascular compromise and/or complex immune mediated mechanisms as an etiology.[16] Cranial nerve and involvement of the spinal nerves may be secondary to extension of the meningeal infection and inflammation or due to the perineurovascular spread from the initial site of infection.

The heart may be a target organ in Lyme disease. Several weeks after the onset of infection, the clinical findings include electrical conduction disturbances.[17] Usually, this involves

various degrees of conduction delays in the atrium where the impulse is initiated at the sinoatrial node, conducted to the atrioventricular node, and then to the ventricles. Usually benign transient conduction disturbances occur, but some patients may progress to complete heart block which results in the atria and ventricles contracting independently. Since the course is self-limited, tissue specimens are unusual, but those that have been studied have shown a lymphoplasmacytic infiltrate and in one case, spirochetes were identified in the myocardial tissue.[18] How the infection causes abnormal rhythms and why AV conduction disturbances are mainly seen are some of the questions that yet need to be answered.

Finally, the joints can be ultimately involved with a monarticular or oligoarticular arthritis. The onset of this arthritis is varied from several days to up to a year or more after initial manifestations. Many patients initially experience only episodic joint, periarticular, and musculoskeletal pains but some patients progress to arthritis and permanent joint disability.[19] Lyme arthritis is frequently mistaken clinically for rheumatoid arthritis, systemic lupus erythematosus, or Reiter's syndrome. Synovial biopsies are probably the most frequent tissue examined microscopically from patients with Lyme disease. The histopathologic spectrum ranges from chronic hyperplastic synovitis with effusions to erosive osteoarthritis.[20]

In summary, Lyme disease has become the most frequently reported tick-borne illness in the United States. The disease captures the attention of physicians, especially in endemic areas such as Wisconsin. Lyme disease is a multi-system disorder with protein manifestations in which the link between ticks, spirochetes, and Lyme disease is established. Yet, much remains to be done to elucidate the natural history of *B. burgdorferi* in the human and the host response to the spirochete and its antigens. The ultimate goal would be to develop a vaccine that prevents the disease.

We recently designed an experimental animal model whereby irradiated and *Borrelia*-infected hamsters developed an erosive and destructive arthritis similar to that seen in humans.[21,22] It is hoped that this animal model will help to unravel some of the unanswered immunobiologic questions about the spirochete and lead to

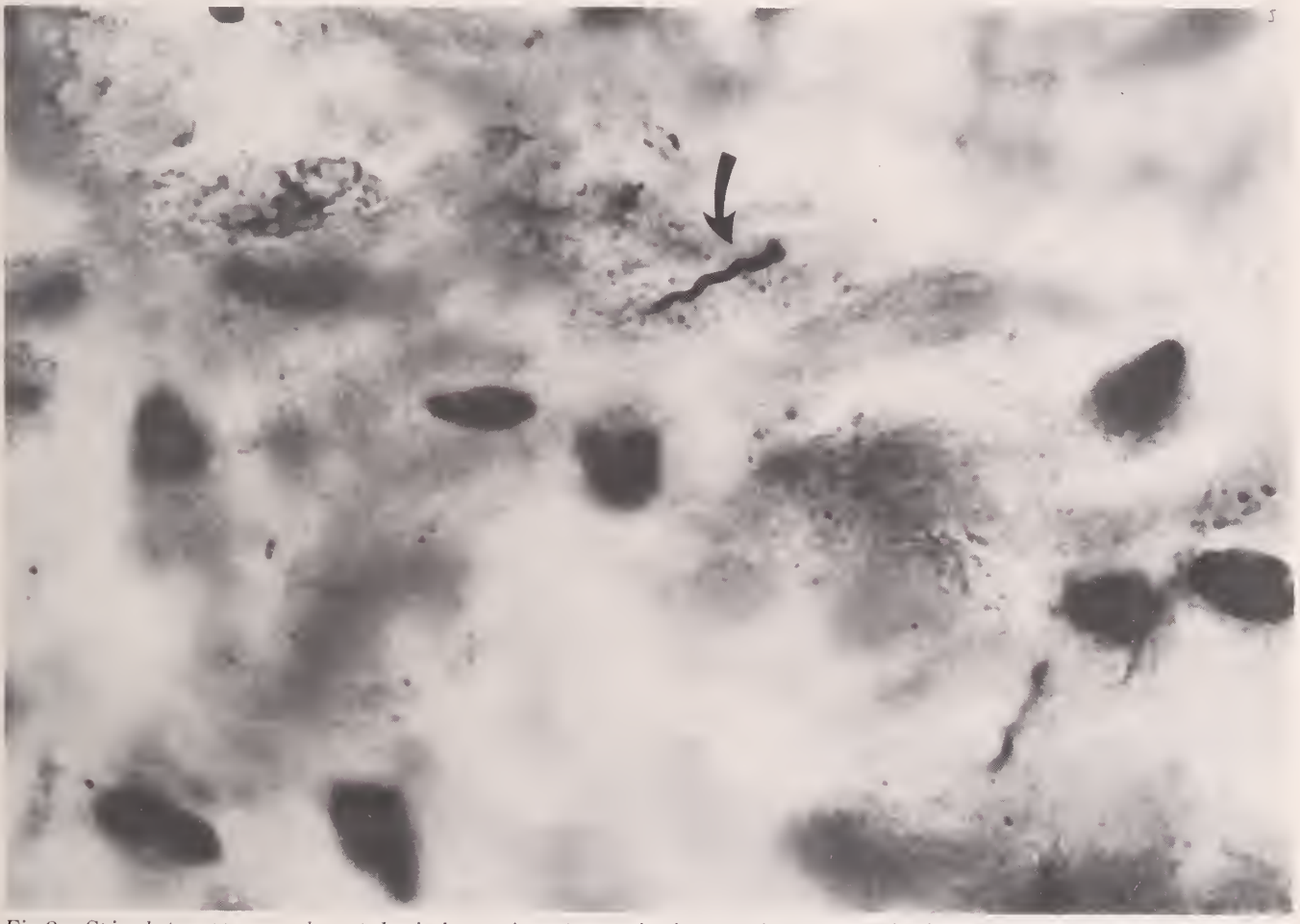

Fig 2.—Spirochetes appear as elongated spiral organisms (arrow) in tissue section of the periarticular soft tissues (modified silver stain of Steiner, 970 x).

ways to abrogate or inhibit the onset of the crippling arthritis, neurologic, cardiac, and dermatologic complications of Lyme disease.

Acknowledgments
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A call for photographs

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The *provisional normal* MSAFP screen

Paul Meier, MD, June Cole, PhD, and Stephen Wagner, MD, Marshfield

Patients with a *provisional normal* MSAFP screen appear to be at significant risk of giving birth to a child with a chromosomal abnormality. Failure to recognize this risk or act upon it may deprive patients of all of their reproductive options. Based upon our experience over an 18 month period, a protocol to evaluate the *provisional normal* MSAFP is reported. *Wis Med J* 1989;88(11):21–24.

THE MATERNAL SERUM alpha fetoprotein test (MSAFP) is a widely used screening test for a variety of fetal maladies and conditions. Originally introduced as a screen for fetal neural tube defects, the test is also useful in the detection of other high risk fetal states such as multiple gestation, intrauterine growth retardation, and open ventral wall defects such as gastroschisis. In 1984, Merkatz suggested an association between low MSAFP values and fetal chromosomal abnormalities.[1] This association has been prospectively confirmed in several large populations studies.[2,3,4]

In Wisconsin, the state laboratory of hygiene performs the MSAFP screen for many practitioners. Currently, the state laboratory reports the results as either low, normal, elevated or *provisional normal.* The term *provisional normal* has caused both concern and consternation among practitioners who are unsure of its meaning or implication. This report describes the protocol we have adopted at the Marshfield Clinic to address the *provisional normal* MSAFP value. Results from the first 18 months of our experience strongly suggest that the term *provisional normal* cannot be ignored or equated to normal, as it appears to identify a group of patients at high risk for fetal chromosomal abnormalities.

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Methods

Beginning August 1, 1987, the MSAFP screen was offered to all pregnant patients between 14 and 19 weeks gestation who enrolled for obstetrical care at the Marshfield Clinic. If the patient did not have a reliable last menstrual period or if clinical examination suggested that the gestational age differed from that calculated by the last menstrual period, an ultrasound examination was used to establish gestational age. Patients were provided with printed material regarding the MSAFP screen at the time of their initial prenatal visit. Both the abilities and limitations of the screening test were stressed. Physicians discussed the screening test with patients individually. A video tape was also available for patient viewing during routine prenatal visits. While patients were not asked to sign a consent either accepting or declining the MSAFP screen, physicians were encouraged to document the patient's decision on the prenatal record.

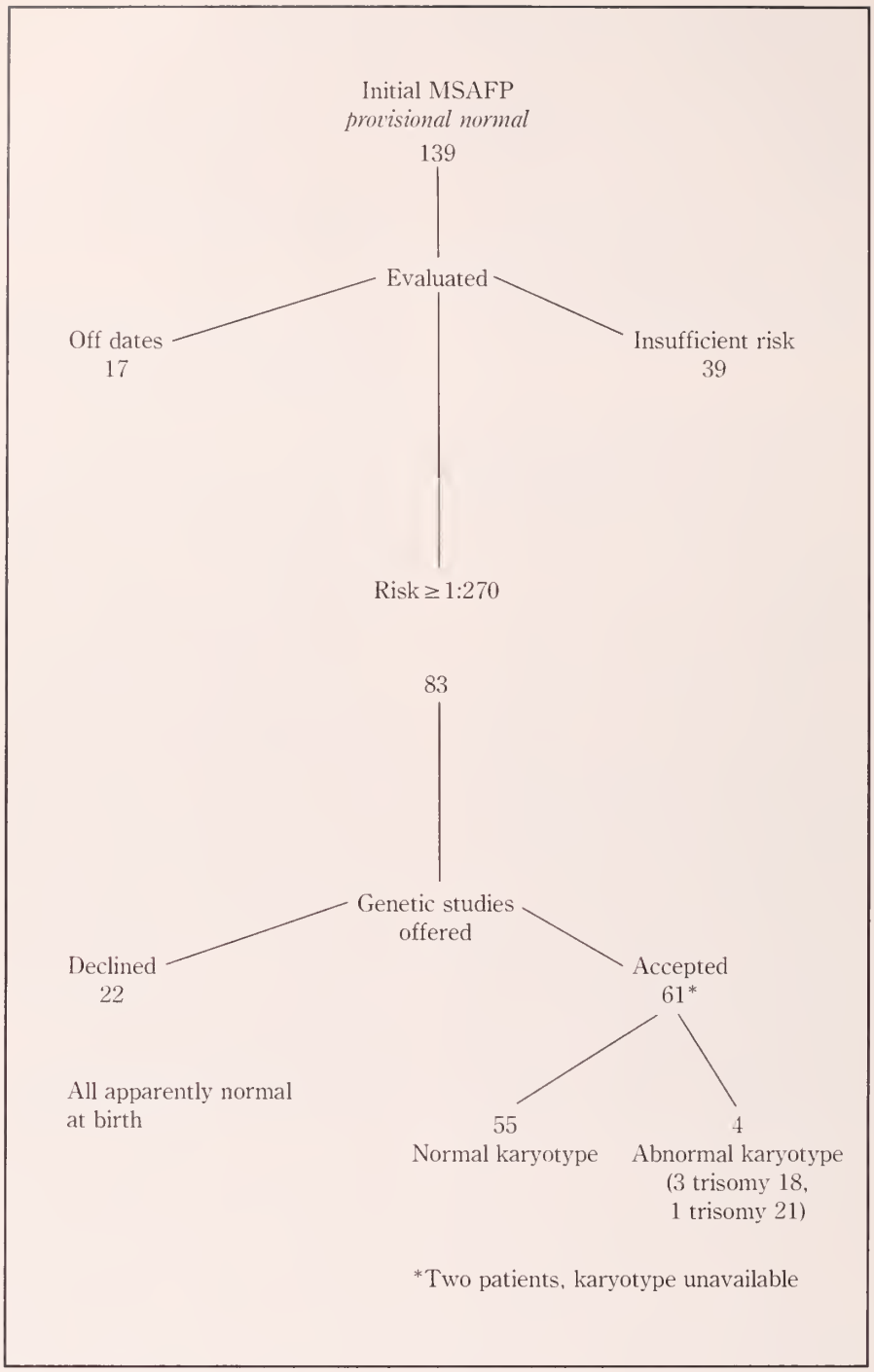
Maternal serum samples were submitted to the Wisconsin State Laboratory of Hygiene, along with the required clinical information. Normal results of the MSAFP tests were reported back by mail and abnormal or *provisional normal* results were reported by telephone to the office of our genetic coordinator. Results were reported on the standard state laboratory report forms and were expressed as crude, unadjusted values as well as adjusted values reflecting maternal age and weight.

If the results were normal, the patient was informed by mail and the results appended to the patient's chart. If the results were not normal, the patient was contacted by telephone to discuss the specific results and what the next appropriate step would be in evaluating the pregnancy. Elevated MSAFP values as well as low MSAFP values were evaluated according to a standard protocol reflecting national practice patterns.[5,6]

Patients with a *provisional normal* MSAFP screen were considered possible candidates for prenatal genetic diagnosis. No second MSAFP screen was drawn unless a marked discrepancy (4 weeks or more) in gestational age could be demonstrated. Using a standard table of risk,[7] the patient's reported adjusted MSAFP—expressed as a multiple of the median—was used to calculate the age adjusted risk of trisomy 21 occurring in that pregnancy.

If the calculated risk for trisomy 21 equaled or exceeded the risk found in a woman of age 35 (one in 270 at the time of second trimester amniocentesis) the mother was informed of the results and offered genetic amniocentesis coupled with a careful ultrasound examination. If the risk did not achieve that level, a note was made that the calculated risk did not equal or exceed the risk of a 35 year old for trisomy 21 and no further testing was recommended.

Genetic amniocentesis was offered to all women who were or who would be 35 years of age at the time of delivery. The MSAFP screen was not used to ascribe either a higher or lower risk for fetal trisomy in this group of women age 35 or greater. The MSAFP screen did not replace or modify our recommendations for



Fig—Outcome of patients with a provisional normal MSAFP.

prenatal genetic diagnosis based on the other historical or clinical factors; ie, birth of a previous child with chromosomal abnormality, ultrasound diagnosis of fetal abnormalities, etc. In some few cases, women 35 years of age or older accepted prenatal diagnosis based on the MSAFP calculated risk rather than their age associated risk.

Amniotic fluid samples were obtained by needle aspiration under continuous ultrasound guidance. Samples were sent to either the Waisman Center in Madison, Wisconsin or to a commercial genetics laboratory for determination of fetal karyotype and amniotic fluid alpha fetoprotein levels.

Results

Between August 1, 1987, and January 31, 1989, 844 patients at the Marshfield Clinic accepted the MSAFP screen as a part of their prenatal care. Of these, 686 (81.3%) were reported as normal. Four (0.5%) patients had a low value of less than 5 ng./ml. reported and 15 (1.8%) patients were reported to have an elevated MSAFP screen.

One hundred thirty-nine patients (16.5%) had a *provisional normal* MSAFP screen and are the subjects of this report. The Figure summarizes the outcome of these patient with a *provisional normal* MSAFP. Of the 139 patients with a *provisional normal* value, 56 (40.3%) were discounted after evaluation and no further testing was recommended. Seventeen of the 56 patients were significantly off on their stated gestational age by ultrasound examination. In the remaining 39 patients, the calculated risk of trisomy 21 did not equal or exceed the risk of a 35 year old woman for that abnormality.

Eighty-three of the 139 patients, 59.7%, were offered further prenatal evaluation by amniocentesis and ultrasound. These patients constituted approximately 10% of the total pool of patients screened. Amniocentesis was offered for definitive diagnosis. Twenty-two patients declined further study and 61 patients accepted amniocentesis for genetic studies. Fifty-nine amniotic fluid samples yielded fetal karyotypes sufficient for evaluation. Four fetuses with abnormal karyotypes were identified: Three cases of trisomy 18 and one case of trisomy 21. One amniotic fluid culture failed to grow in a case of an intrauterine demise and in one case the amniotic fluid was not obtained.

Three of the four patients with trisomic fetuses continued their pregnancies and one elected to terminate the pregnancy. In the three patients who continued their pregnancies, all fetuses were born liveborn at term and the diagnosis was confirmed on

physical examination. Of the 22 patients at risk for fetal trisomy who declined amniotic fluid studies, all have delivered apparently normal children. Thus, among 83 patients identified as being at risk for a fetal trisomy by having a *provisional normal* MSAFP, four cases of fetal trisomy have been found for an incidence of approximately one in 20 patients or 4.85% (95% confidence interval 1.33%–11.88%). The Table summarizes the data on the four patients who were found to have trisomic fetuses including their ages, adjusted multiple of the median and calculated risk for fetal trisomy based on both maternal age alone and the MSAFP values.

Table—Patients having trisomic fetuses

Case	Maternal Age	MSAFP MOM	Risk, Age Alone	Risk, MSAFP Age Adjusted	Karyotype	U/S Findings
1	23	0.27	1/1000	1/101	47XX+18	Question of polydactyly Single umbilical artery.
2	26	0.39	1/840	1/210	47XY+21	Probable ostium primium defect of the heart.
3	26	0.40	1/840	1/220	47XY+18	
4	31	0.48	1/650	1/250	47XY+18	Single umbilical artery.

All risk values are for trisomy 21 at time of second trimester.

Discussion

MSAFP screening has become an established feature of prenatal care in this country. In the opinion of the Legal Council of the American College of Obstetricians and Gynecologists, the obligation exists to inform patients that this type of screening test is available. A corollary of this obligation to inform patients about the possibility of such a test is the responsibility to correctly inform the patient concerning the abilities and limitations of the test. Further, the practitioner is under an obligation to use the test appropriately if the patient chooses to have the screen performed. Wisconsin practitioners who use the State Laboratory of Hygiene for MSAFP analysis, must contend with the ambiguous diagnosis of *provisional normal* on a substantial portion of reports returned to them. Despite the ambiguity of the term *provisional normal*, the report generated by the state laboratory does contain the necessary information to allow a determination of potential risk for fetal chromosomal abnormalities to be made.

Assuming that the practitioner has provided an accurate estimate of gestational age, maternal weight, and age, the laboratory will report the MSAFP as an adjusted "multiple of the median" (MOM). It is this number which allows values generated in various laboratories to be compared and information generated by these laboratories to be used. Using the adjusted MOM and referring to a standard chart, the risk for any mother of giving birth to a fetus with Down's syndrome can be established. In accord with the protocol outlined by DiMaio and others,[2] we have chosen to offer further genetic testing to any woman whose pregnancy is judged to have the same risk for Down's syndrome as that of a 35-year-old woman. This protocol has succeeded in identifying one fetal trisomy for every 20 pregnancies judged to be at this risk level. This is an exceedingly high number of fetal trisomies and we suspect that this high incidence is a reflection of the relatively small numbers in our study population.

Several points must be stressed. First, this protocol is intended to apply to women who are under 35 years of age. It has not been our intent to use the MSAFP value to modify the quoted risk of fetal trisomy in women age 35 or older. Despite our intent, we are aware of several women who were 35 years of age or older who accepted amniocentesis for the purpose of prenatal diagnosis based on the *provisional normal* MSAFP screen. None had an abnormal fetus. All four of the trisomic fetuses we diagnosed were fetuses who would not have been ordinarily detected using current indications for prenatal genetic diagnosis.

Second, we do not draw a second MSAFP on patients who have a *provisional normal* value reported initially. This is in direct conflict with recommendations by the state laboratory. Because of a statistical phenomenon termed regression toward the mean, repeated values are more likely to be normal despite the presence of an abnormal fetal karyotype.[8] To avoid this potential problem, we have chosen to act on the single initial-value reported.

Finally, while the use of the term *provisional normal* is potentially confusing, the values reported by the state laboratory do appear to be useful in screening a segment of the pregnancy population which heretofore have not been easily screened for fetal chromosomal abnormalities. While we have identified four trisomic fetuses in this high risk group, we

have not had any trisomic fetuses born during the 18 month period to patients with a normal MSAFP. It is understood and indeed expected that this will inevitably occur.

In summary, the term *provisional normal* cannot be equated with a normal MSAFP. It identifies a subgroup of the pregnant population who are at significant risk for giving birth to a fetus with a chromosomal abnormality. In our patients, using the protocol outlined, four trisomic fetuses were diagnosed in a group of 83 women determined to be at significant risk for fetal chromosomal abnormalities. To ignore the implications of the *provisional normal* MSAFP may expose the Wisconsin practitioner to criticism and potential legal jeopardy. Clearly, what is needed is an intensive effort to follow-up on those pregnancies who have had *provisional normal* MSAFP values reported. The outcome of all of these pregnancies must be known if we are to truly know what risk this diagnosis carries for our patients.

Addendum

In the three months since the data base was closed, two additional trisomic fetuses have been identified, using the above described protocol. In both cases, a diagnosis of trisomy 21 was made. Thus, in 97 patients at risk for fetal chromosomal abnormalities, six fetal trisomies have been identified.

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Cardio-pulmonary resuscitation in a community hospital

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CARDIOPULMONARY RESUSCITATION (CPR), as much other diagnostic and therapeutic intervention, has evolved through the stages of experimentation to enthusiastic, widespread application and finally to thoughtful retraction to those patients and clinical situations in which its application appears to be most effective.[1]

Research and experimentation in CPR was requested by the electrical power industry in 1926 in an attempt to reduce the mortality of work related electrocution.[2] Internal and external cardiac massage, open and closed chest defibrillation and mouth to mouth or bag-mask artificial ventilation were developed as procedures and so were defibrillators, pacemakers and ventilatory equipment in the ensuing years.[3,4] Organizational support by the American Heart Association and the National Academy of Sciences were instrumental in instituting a nationwide program of basic and advanced cardiac life support beginning in the early sixties.

The earlier assumption that external chest compression constitutes indirect cardiac massage analogous to direct open heart massage was soon challenged by some investigators.[5,6,7] Human and animal studies confirmed that during chest compression blood flow is maintained by intrathoracic but not intracardiac pressure changes, that the intracardiac valves do not significantly affect the direction of blood flow, and that propulsion through the arterial tree is favored by the pressure induced collapse of large venous vessels and the continued patency of the more rigid large arteries.[9] Prolonged downward chest compression, simultaneous inflation and cough also enhance the flow from the thorax to the tissues.[8]

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Table 1—Outcome of 86 attempted resuscitations

Outcome	No.	%
Unsuccessful	42	49
Successful	44	51
Alive at discharge	22	26
Died in hospital	22	26

Coronary artery flow is diastolic pressure dependent and therefore absent during cardiac arrest and even during external chest compression. Raising diastolic aortic pressure by large doses of epinephrine may assist coronary blood flow and the perfusion of other vital organs.[10] During cardiac arrest profound metabolic acidosis rapidly ensues throughout the body and particularly in the myocardium. It is usually not reversed by resuscitation alone as indicated by the persistent wide arterio-venous gradients of oxygen and hydrogen ions.

This brief review of the pathophysiology of cardiopulmonary arrest and resuscitation brings into focus that in the adult prolonged chest compression and assisted ventilation alone cannot provide adequate perfusion to any vital organs particularly the brain and the myocardium. Early restoration of intrinsic and effective myocardial contractions resulting in a physiologically adequate cardiac output appear to be essential to assure survival. With this background we intended to study the outcome of 86 cardiopulmonary arrests and attempted resuscitations which had occurred at Columbia Hospital during 1988.

Methods

The Crisis Review Committee of Columbia Hospital reviewed 86 consecutive cases of cardiopulmonary arrest which had occurred between January 1988 and 1989. The protocol sheet of each attempted resuscitation was screened for proper adherence to the basis and advanced cardiac life support protocol, and the witnessed or unwitnessed nature of the arrest. The duration of cardiac standstill was estimated from the absence or presence of blood pressure or palpable pulse and the nature of the arrhythmias observed in the course of the resuscitation: asystole, ventricular fibrillation and electromechanical dissociation.

The patients' medical records were reviewed to determine the circumstances and co-morbidity at the time of the arrest and to assess the post-arrest organ damage. This consisted of, but was not limited to the following signs and symptoms:

- central nervous system—coma, seizure, paralysis;
- cardiac system—low cardiac output state requiring vasopressor support, life threatening arrhythmias;
- respiratory system—hypoxemia/hypercarbia, pulmonary infiltrates which were out of proportion to the post resuscitation pulmonary edema;
- renal system—rise of serum creatinine into the abnormal range or further increase from the post-resuscitation level; and
- hepatic system—diffuse liver enzyme rise a/o jaundice.

If the patient expired post resuscitation the organ system most likely responsible for the death was identified.

In view of the pathophysiology of CPR outlined above the following questions were investigated:

What is the relationship between and the outcome of the patient's age, nature of the arrest, the duration of cardiac standstill, and the principal morbidity at the time of the arrest? And how is survival following successful resuscitation related to any CPR associated organ damage?

Table 2—Age distribution of patients by outcome

	<60	61–70	71–80	>81
Total (% of total) N = 86	12 (14%)	25 (29%)	28 (33%)	21 (24%)
Unsuccessful (*)	4 (33%)	12 (46%)	13 (46%)	13 (62%)
Successful, died in hospital (*)	3 (25%)	5 (20%)	8 (29%)	6 (29%)
Successful, alive at discharge (*)	5 (42%)	8 (32%)	7 (25%)	1 (5%)

*% of total in age group

Table 3—Precipitating causes of all cardio-pulmonary arrests and outcomes

Group	No. of patients (% of all)	Alive at discharge (% of group)
Ventricular tachycardia-fibrillation	27 (31%)	10 (37%)
Bradyarrhythmia and sinus rhythm	13 (15%)	5 (38%)
Electromechanical dissociation	12 (14%)	0 (0%)
Asystole	11 (13%)	2 (18%)
Respiratory arrest	13 (15%)	4 (31%)
Undetermined	10 (12%)	1 (10%)

Table 4—Outcome of successful resuscitation in relationship to duration of cardiac standstill

	Duration of cardiac standstill	
	<5′	>5′
Total	32	12
Deaths in hospital	10	12
%	31%	100%

Results

The 86 patients submitted to resuscitation at Columbia Hospital in 1988 represent 22% of all deaths during that same period. This percentage is lower than recently published by Taffet (35%) and Bedell (30%).[17,15] Earlier studies by Johnson and Peatfield revealed resuscitation in 27% and 11% of all patients who were moribund.[13,14] Currently at Columbia Hospital 30-50% of all patients who die are hospitalized for terminal care and are usually designated as no code.

Of the 86 codes, 13 were respiratory and 73 hemodynamic, predominantly cardiac. Their overall outcome is depicted in Table 1. Four of the 86 patients were unwitnessed arrests, none of whom survived resuscitation.

Table 2 demonstrated that unsuccessful resuscitation appears more likely for patients over the age of 80. For the 60–80 year group age does not seem to affect outcome.

Of the 86 patients the largest group, 31 (36% of total) had suffered an acute myocardial infarction prior to cardiac arrest. Two (6%) of them were alive at discharge. Fifteen patients (17%) had chronic heart disease and four of them (27%) survived to discharge. Twelve patients arrested following open heart surgery but eight of them (67%) survived, an interesting contrast to the acute myocardial infarct group. Only one out of the 86 patients had cancer, and he was successfully resuscitated.

In published reports on the outcome of CPR the fraction of cancer patients ranged from 20–22%.[15,17] The difference is probably due to a high incidence of do-not-resuscitate orders among our cancer patients who in 1988 constituted 15% of our patient days and who currently constitute 40% of all of our deaths.

The spectrum of causes of cardiopulmonary arrests including arrhythmias and respiratory arrest is similar to that published in other series.[11-17] Likewise out data indicate that ventricular fibrillation and respiratory arrest offer a better prognosis than asystole and electromechanical dissociation (Table 3).

Table 4 attempts to correlate outcome with the duration of cardiac standstill as estimated from the cardiac arrest-protocol sheet. Two of the patients arrested because of massive bleeding, one from a ruptured abdominal aneurysm, the other from the gastrointestinal tract, and therefore it is likely that their coronary blood flow never ceased. Three patients had a profound bradyarrhythmia which was first diagnosed as cardiac arrest. Their successful outcome also may be based on minimal interruption of myocardial perfusion. Record keeping and the observation of time during a code may be fraught with errors and misperceptions so that a five minute cardiac standstill may actually constitute a different, probably longer time interval. Nevertheless, our data indicate a 100% mortality when resuscitation had to be carried out beyond this five minute threshold. This is corroborated by other studies in which poor outcome correlated with resuscitation beyond 15 minutes or the need for tracheal intubation.[15,16]

Table 5 points out that both the heart and the brain are the most vulnerable organs for anoxic injury. It is impossible to separate the acute myocardial injury which had caused the cardiac arrest from that which is caused by the cessation of coronary blood flow during the cardiac standstill. This combined myocardial injury was responsible for the majority of the post resuscitation deaths, and most of them occurred with 24 hours of the primary arrest.

CNS damage was observed among 14 patients who died but only two patients who were alive to discharge. This high incidence of CNS damage among the post-resuscitation deaths is probably linked to poor pump function supporting the finding of others that good recovery of cardiac output post resuscitation minimizes anoxic brain damage.[20] The incidence of renal, respiratory and hepatic damage also was greatly reduced among the survivors in contrast to the nonsurvivors.

Discussion

The successful outcome of CPR depends on many factors, including the immediacy with which basic and advanced life support are applied, the principal illness and co-morbidity, as well as age or at least the complexity of health problems which it often

Table 5—Time to death in relationship to principle organ damage

Time to death	*No. of patients*	Organ system			
		Cardiac	*CNS*	*Respir.*	*Mixed*
24 hours	11	10	1		
24–48 hours	2	1	1		
2– 4 days	4	2		1	1
4– 8 days	1				1
8–16 days	2	1			1
16 days	2				2
Total	22	14	2	1	5

entails (Table 6). In our study, CPR was always promptly instituted in the 86 patients whose outcome was reviewed. The comparability of our results with the outcome published in other series, however, is limited because of selection factors, the number of patients in-or excluded because of terminal illness and the fraction of all moribund patients submitted to CPR. Nevertheless, the short term survival following in-hospital resuscitation is generally low and has not improved since its inception in 1960 (Table 7).

Failed primary resuscitation is most likely due to cardiac failure but also may be caused by pulmonary embolism, internal exsanguination and a few other causes. Fourteen of our 22 patients who died following successful resuscitation succumbed to heart disease. Thus, the severity of myocardial malfunction which precipitates the cardiac arrest as well as its aggravation by the absent coronary blood flow during resuscitation appear to be strong predictors for poor outcome. Conversely, if the heart has been rejuvenated by bypass or valve replacement surgery outcome may improve as our data suggest. Age is an independent risk factor for the extent and severity of coronary artery disease, and here may be our true link between advanced age and poor outcome with resuscitation.[19]

Our patient population mirrored the favorable and unfavorable survival factors in CPR identified by others[11-17] (Table 6). A primary respiratory arrest, intercepted early, may be associated with minimal compromise of coronary blood flow, and therefore the heart may respond immediately to resuscitative measures. In contrast, the bradyarrhythmia, asystole or electromechanical dissociation of a massively infarcted heart, of diffuse anoxic myocardial damage, or of massive pulmonary embolism may present no chance of survival. Since the ACLS protocol calls for tracheal intubation after the initial cardiac resuscitative measures had been undertaken, it may signal the onset of a prolonged resuscitation, henceforth its poor prognosis. Pediatric patients may fare better because of a general absence of coronary artery disease, age related myocardial fibrosis or obstructive aortic valvular disease. Also, the mechanics of closed chest compression in children may more closely resemble open heart massage.

Our post resuscitation mortality was concentrated in the ensuing 24 hours. This period is perhaps more appropriately designated as "protracted resuscitation" during which organ failure will progress, or reverse if proper circulatory support is provided. During this period CNS damage also has a greater chance of reversal than later on. Thus, the prognostic significance of myocardial and brain damage relate to each other in

Table 6—Summary of favorable and unfavorable factors in the survival of cardiopulmonary arrest

	Favorable	Unfavorable
Precipitating cause	Respiratory arrest ventricular tachycardia-fibrillation	Bradyarrhythmias, asystole Electromechanical dissociation
	Institute CPR <4 min ACLS <8 min	
	Cardiac standstill <10 min	Resuscitation time >15 min
Resuscitation	Mask-bag ventilation	Tracheal intubation repeat arrest
Location of patient	Surgery, recovery room, ICU, emergency dept.	General ward unwitnessed arrest
Patient characteristics	Pediatric age group adults < 60 years old	Adult > 80 years old
	Alertness 24 hours post arrest	
	No vasopressors after 24 hours	
Primary and associated diseases	Overdose	Poor LV function Pulmonary embolism Malignancy Head trauma Renal failure Respiratory failure

an inverse fashion: In the face of lethal myocardial damage the state of the brain becomes irrelevant because death will ensue rapidly. Conversely, the less heart damage there is, the higher is the likelihood of survival except for the limitation imposed by any brain damage.

Acute anoxic brain damage may, among other signs, manifest itself in seizures.[20] Recurrent seizures, however, can constitute effect as well as cause of further brain damage and need to be treated as promptly as any life threatening cardiac arrhythmia. Brain resuscitation following anoxia is under intensive research, but so far no conclusive recommendations regarding the use of barbiturates, hemodilution, calcium channel blockers and hypothermia are available.[20] Clearly established, however, is the need for an adequate cerebral perfusion pressure based on a normal cardiac output.

Post resuscitation respiratory and renal failure are largely reversible. Most of our patients presented post resuscitation with some degree of pulmonary edema based on a combination of rapid fluid infusion and acute anoxic myocardiopathy, a version of the so-called stunned heart. More profound respiratory failure is sometimes caused by pre- or intra-resuscitation aspiration.

The standards by which resuscitation on our 86 patients was initiated and carried out enabled 25% of them to leave the hospital alive in a reasonably good state. Among the 21 patients over 80 years of age nine survived the initial arrest, but only three (14%) left the hospital. The six patients who died accumulated 37 days of intensive care. The estimated cost of resuscitation of all 21 plus the intensive care of six nonsurvivors was $100,000 which is only about 0.5% of our Medicare costs for that year. Thus, the economic cost of resuscitating all 21 patients associated with the survival of three is only one facet of cost-benefit considerations. Another important, nonmonetary cost is the psychological impact of their prolonged life support dependence on both, family members and intensive care personnel. Any decision to withhold CPR solely because of advanced age needs to reckon with all of these factors.

In summary, the review of 86 consecutive cases of cardiopulmonary arrest and attempted resuscitation in 1988 at Columbia Hospital yielded a 50:50 outcome patterns: 50% were successfully resuscitated, and of these patients 50% left the hospital alive, an overall favorable outcome of 25%. Death uniformly ensued if true cardiac standstill—asystole, electromechanical dissociation or ventricular fibrillation with assumed absent coronary blood flow—despite effective CPR extended beyond 5–10 minutes. If resuscitation was successful initially the leading cause of death still was heart disease. Mixed organ damage including anoxic encephalopathy were responsible for additional mortality. Our study, therefore, supports the general skepsis with which CPR has recently been regarded and tends to confirm the pathophysiological limitations of resuscitation discovered by others.

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Table 7—Outcome of in-house CPR comparison of published results

Author	Study period	No. of Pts.	Resusc./ total deaths	% Discharged Alive		
				Circ. arrests	*Resp. arrests*	*Combined*
Jude[4]	1960–1961	118		13%		24%
Johnson[11]	1961–66	552		14%	25%	15%
Saphir[12]	1966–67	186		8%	27%	
Lemire[13]	1965–70	807	27%			22.6%
Peatfield[14]	1967–76	1063	11%	11%		8.7%
Castagna[16]	1971–72	137				10%
Tresch[18]	1982–84	214				20%
Bedell[15]	1981–82	294	30%			14%
Taffet[17]	1984–85	329	<70:261 >70.68	35%	<70: >70:	16% 0%
Columbia Hospital	1988	86	22%	21%	46%	26%

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Pregnancy in lymphocytic hypophysitis: case report and review

James C. Brandes, MD and James M. Cerletty, MD, Milwaukee

Lymphocytic hypophysitis has reported in 22 cases, all but one in women. More than 80% of the cases in women occurred during pregnancy or in the postpartum period. We describe a girl with partial hypopituitarism secondary to lymphocytic hypophysitis who, five years after the diagnosis, successfully delivered a healthy infant at term. Of the previously reported cases, most patients remain amenorrheic after the diagnosis. From the present case report and review of the literature, it would appear that a diagnosis of lymphocytic hypophysitis does not necessarily preclude the patient's ability to conceive and successfully carry the pregnancy. Pituitary hormone deficiency in this disease, therefore, does not always include the gonadotropins. *Wis Med J* 1989;88(11):29–32.

LYMPHOCYTIC HYPOPHYSITIS is believed to represent an autoimmune disease usually associated with pregnancy. Biopsy of the pituitary gland in these patients have demonstrated extensive infiltration with lymphocytes, some plasma cells and occasional lymphoid follicles with germinal centers. The first case of lymphocytic hypophysitis was described in a woman two months postpartum by Goudie and Pinkerton,[2] in 1962. Subsequently, 21 other patients have been described in the literature.[3-20] All but one of these cases have been reported in women.[20]

Seventeen of the 21 cases reported in women (81%) noticed symptoms of hypopituitarism during pregnancy or postpartum,[1-3,7-14,16-19] Most patients develop panhypopituitarism; however, a few regain menses,[9,11,13,18] and one patient was able to become pregnant after the diagnosis was made.[18]

We report herein a patient who successfully delivered a male infant five years after the diagnosis of a lymphocytic hypophysitis was made.[21]

Case report

In 1983, a 17-year-old girl was admitted to the hospital with weakness, anorexia, orthostatic dizziness, and severe headaches. These symptoms had developed within ten weeks following the birth of her second child. On physical examination, she appeared acutely ill, weak, and unable to stand without assistance. Her blood

pressure was 88/50. Admission laboratory was significant for a calcium level of 11.7 mg/dl.

Endocrine studies at that time included baseline serum cortisol and aldosterone levels which were less than 2 ug/dl (normal, 4–28 ug/dl) and 11 ng/dl (normal, 1–21 ng/cl), respectively. The adrenocorticotropic hormone level was 15 pg/ml (normal, 15–100 pg/ml), prolactin level was less than 15 pg/ml (normal, 0–23 pg/ml), luteinizing hormone level 12 ImU/ml (normal, follicular phase 5–20 ImU/ml), and follicle-stimulating hormone level was 11 ImU/ml (normal, 2–30 ImU/ml). The patient was hyperthyroid with hyperthyroxinemia and a low thyroid stimulating hormone level of 1.7 IuU/ml (normal, 1–10 IuU/ml) and a low thyroidal uptake of sodium iodine I^{131} consistent with silent thyroiditis.

Cosyntropin was infused intravenously on three consecutive days with appropriate rise in her plasma adrenocorticosteroid levels indicating secondary adrenocortical insufficiency. An insulin tolerance test was performed without a resultant increase in cortisol, prolactin or growth hormone. The antinuclear antibody was positive at a titer of 1:640 although the patient had no clinical evidence of lupus. A coronal computed tomography scan (CT scan) with contrast of the sella turcica demonstrated a homogeneously enhancing mass filling much of the pituitary fossa with some suprasellar extension.

It was decided to observe the patient closely and defer surgery on the pituitary mass until the patient was stable on hormonal replacement therapy. Four months later, a repeat CT scan of the sella turcica showed resolution of the mass with a normal appearing pituitary gland.

The patient became hypothyroid and a thyrotropin releasing hormone stimulation test failed to elicit an appropriate rise in thyroid-stimulating hormone or prolactin consistent with hypopituitarism. The patient responded well to thyroid replacement and cortisone acetate with resolution of her symptoms and hypercalcemia. She remained amenorrheic for nine months after the diagnosis but then regained normal menses. Repeat CT scan through the sella turcica, two years after the diagnosis, remained normal in appearance without evidence of tumor, hypodense areas or necrosis; a second repeat CT scan five years later showed a scant amount of homogeneous pituitary tissue lying in the floor of the sella characteristic of an empty sella. A diagnosis of lymphocytic hypophysitis was made.

Five years later, the patient successfully delivered a healthy infant at term. Prenatal care had been uncomplicated. The patient had been maintained on thyroid replacement and cortisone acetate since the diagnosis of lymphocytic hypophysitis was made.

The patient's physical examination on admission was appropriate for this stage of pregnancy. Her blood pressure was 122/82 with a pulse of 92. The visual fields were normal by confrontation. Examination of the thyroid gland, heart, lungs, and extremities also were normal. The abdomen was soft and was gravid with estimated fetal weight of 3500 grams. Fetal heart tones ranged between 120 and 140. On pelvic exam, the cervix was four centimeters dilated and soft. Admission laboratory data included the following values: creatinine, 0.7 mg/dl; blood urea nitrogen, 1 mg/dl; sodium, 140 mEq/L; potassium, 3.6 mEq/L; chloride, 107 mEq/L; bicarbonate, 25 mEq/L; glucose 96 mg/dl. The hemoglobin level was 13.5 g/dl with the hematocrit at 40 %. The white blood cell count was 17,300 cmm with a normal differential. Hemoglobin electrophoresis was normal.

The labor was initiated with a spontaneous rupture of membranes followed by a vaginal delivery with shoulder dystocia. During labor, the patient was supplemented with an increased dose of hydrocortisone to compensate for the stress of labor. Postpartum care was uneventful and the patient and infant were discharged home two days after delivery.

Discussion

Lymphocytic hypophysitis should be considered in the differential diagnosis of hypopituitarism, partial or complete, developing in pregnancy or postpartum. The etiology of the disease is unclear; however, Goudie and Pinkerton[2] were the first to suggest an autoimmune basis. The histologic features of this lesion are similar to those of other autoimmune disease with lymphoid follicle infiltration and electron microscopy demonstrating interdigitation of activated lymphocytes with pituitary cells.[1] Anti-pituitary antibodies were detected in a patient with lymphocytic hypophysitis described by Mayfield el al;[9] and anti-nuclear antibodies are frequently detected. The patient in the present case had a high anti-nuclear antibody titer. Of the patients previously reported, 22% had associated autoimmune disease of other endocrine organs, most commonly lymphocytic thyroiditis[2,3,7,17,18] as in our patient.

Signs and symptoms of lymphocytic hypophysitis mimic those of a pituitary mass with pituitary insufficiency. Of the 22 cases reported, headache, visual disturbances, amenorrhea, nausea, vomiting, and fatigue were the most common presenting complaints.[1-20] Of the seventeen previous cases associated with pregnancy or the postpartum period, the majority of patients developed symptoms in the last trimester or within one month after delivery as shown in Table 1.

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Table 1—Onset of symptoms in 17 patients with lymphocytic hypophysitis related to pregnancy

Onset of symptoms	No. (%)
Third Trimester	6 (34)
1 month postpartum	4 (24)
2–6 months postpartum	3 (18)
7–12 months postpartum	1 (6)
12 months postpartum	3 (18)

The diagnosis of lymphocytic hypophysitis was made at autopsy in nine of the 22 reported cases;[2-7,11,16,17] all other cases were diagnosed by biopsy either by a transsphenoidal approach or craniotomy.[1,8,10,12-15,18-20] A CT scan was performed on twelve cases before biopsy.[7-10,12-15,18-20] All 12 patients had an intrasellar mass with many having suprasellar extension as in our patient. A repeat CT scan in our patient four months after the mass was detected showed complete resolution without any surgical intervention, consistent with the diagnosis of lymphocytic hypophysitis rather than a pituitary adenoma. These observations in our patient suggest that some pituitary masses related to pregnancy do not require surgical intervention, but rather should be observed closely with sequential CT scanning.[21]

The majority of patients with lymphocytic hypophysitis had complete hypopituitarism, but many had only partial deficiencies[6-7,9-13,18] as shown in Table 2. With pituitary disease, it is classically taught that anterior pituitary hormones fail in a predictable fashion; growth hormone and the gonadotropins disappear first followed by thyrotropin, prolactin, and ACTH, respectively.[22] There are, however, many exceptions to this rule as illustrated in lymphocytic hypophysitis. For example, two previously reported cases had isolated corticotropin deficiency.[7,18] Additionally, our patient had developed panhypopituitarism at first, but nine months later, regained the ability to secrete gonadotropins reflected by the return of menses and subsequent conception.

Of the ten previously reported cases of lymphocytic hypophysitis in premenopausal patients who survived after the diagnosis was established and a menstrual history was obtained, eight were amenorrheic[8,1-20,12,14-15,17-18] and two had normal menses.[9-13]

Table 2—Endocrinologic features in patients with lymphocytic hypophysitis who were appropriately tested

Feature	No. (%)
Complete hypopituitarism	9 (56)
Partial hypopituitarism	7 (44)
normal cortisol	1
normal menses	4
normal TSH*	4
Prolactin level	
normal	5 (46)
elevated	6 (54)

*TSH = Thyroid-Stimulating Hormone

Two of the eight patients who were originally amenorrheic regained menses,[10,18] and one was able to conceive again.[18] Hence, pituitary deficiency in this disease does not always include the gonadotropins not unlike that observed in Sheehan's syndrome. Grimes et al[23] reviewed 19 cases of Sheehan's syndrome in which a total of 39 pregnancies occurred after the onset of hypopituitarism.

This summary is only the second reported case of a patient with lymphocytic hypophysitis who was able to conceive and carry the pregnancy to term after the diagnosis was established. The original diagnosis in our patient was based on clinical presentation of hypopituitarism postpartum, laboratory findings of pituitary insufficiency and a high ANA titer, associated thyroiditis, and most importantly, a disappearing mass on sequential CT scanning avoiding an invasive procedure to obtain a biopsy. This case, along with a review of the literature, indicates that a diagnosis of lymphocytic hypophysitis in a patient does not preclude the ability to conceive and successfully carry the pregnancy while on hormonal replacement therapy.

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This is a partial list. The complete list from 1841 to 1972 appeared in the January 1973 issue.

Leif H. Lokvam, MD, Kenosha	1961–1962
Nels A. Hill, MD, Madison	1962–1963
*William J. Egan, MD, Milwaukee	1963–1964
*William P. Curran, MD, Antigo	1964–1965
*John H. Houghton, MD, Wisconsin Dells	1965–1966
*Frank E. Drew, MD, Fond du Lac	1966–1967
Harold J. Kief, MD, Fond du Lac	1967–1968
*William D. James, MD, Onconomowoc	1968–1969
Robert E. Callan, MD, Milwaukee	1969–1970
*Jerry W. McRoberts, MD, Sheboygan	1970–1971
George A. Behnke, MD, Kaukauna	1971–1972
Robert F. Purtell, MD, Milwaukee	1972–1973
Gerald J. Derus, MD, Madison	1973–1974
John E. Dettmann, MD, Green Bay	1974–1975
Howard L. Correll, MD, Arena	1975–1976
*Charles J. Picard, MD, Superior	1976–1977
*Roy B. Larsen, MD, Wausau	1977–1978
Jules D. Levin, MD, Milwaukee	1978–1979
Darold A. Treffert, MD, Fond du Lac	1979–1980
Russell F. Lewis, MD, Marshfield	1980–1981
Albert J. Motzel Jr, MD, Waukesha	1981–1982
Gerald C. Kempthorne, MD, Spring Green	1982–1983
Chesley P. Erwin, MD, Milwaukee	1983–1984
Timothy T. Flaherty, MD, Neenah	1984–1985
John K. Scott, MD, Madison	1985–1986
John P. Mullooly, MD, Milwaukee	1986–1987
Kenneth M. Viste, Jr, MD, Oshkosh	1987–1988
J D Kabler, MD, Madison	1988–1989

* Deceased

A doctor in the house

Kathryn Derene, assistant editor

Frank H. Urban, MD, was elected in September as representative from the 99th Assembly District in a special election. After winning a three-way Republican primary in August, he was unopposed in the general election. Dr Urban succeeds Margaret A. Farrow, who won the Senate seat vacated last spring by Susan Engeleiter. Rep Urban's district covers a portion of Waukesha County, including the village of Elm Grove, the city of Brookfield, and parts of the towns of Brookfield and Wauwatosa. A dermatologist, Dr Urban graduated from the University of Wisconsin Medical School in Madison. He is a member of the SMS Board of Directors and served on the Task Force on Health Care for the Uninsured.

The following interview was given at the SMS Fall Medical Issues Conference in October.

WMJ: How did you get involved in politics Dr Urban?

Dr Urban: Well, it started about six years ago, when I was approached to run for trustee in the Village of Elm Grove. At that time we were having problems getting a downtown renovation project approved by the village board, and I felt that we needed to do this. . . . Also, I was at a time in my life when my kids were pretty well grown up—and I'd been quite involved in scouting—so I had the ability to give the time commitment that was required for the job. I got in and I got involved in the process and enjoyed it. About two years after that, an opportunity came to run for village president and I ran for that and was elected. And, of course, this past summer there was a vacancy in the Assembly, so I ran for that and, as you know, was elected.

WMJ: How do you think your role as a physician meshes with being an elected official?

Dr Urban: Well, I think it meshes very well. I think there are a lot of similarities in that both, in essence, are people businesses. You're dealing with the public. You have to be able to interact with the public and you have to be able to listen and understand. Also, I think that as a physician you must be a compassionate, caring individual, and certainly there are many societal problems that require that outlook.

Rep Frank H. Urban, MD

WMJ: You've also been involved in politics through your involvement with the Medical Society.

Dr Urban: Yes, that's correct, actually, going back many years. For example, I'm a past president of the Wisconsin Dermatological Society. I was also involved in the early '80s in an effort to put together a statewide dermatological Independent Practice Association (IPA). I was involved also with Surgical Care Blue Shield before its association with the Medical Society was dissolved. I've been on the membership committee of the Milwaukee County Medical Society, and I am the leader of the District 1 delegation to the state

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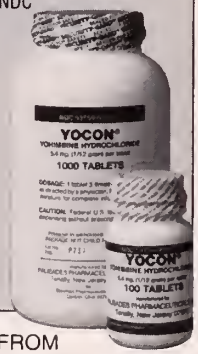

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society. So I've been involved in a number of medical-political activities.

WMJ: Do you think that physician involvement made a difference in your election to the Assembly?

Dr Urban: No question about it—yes it did. In many ways, financially, also as campaign workers and participants in the get-out-the-vote effort. So, yes, it made a definite difference.

WMJ: How do you perceive your role as a freshman in the minority party?

Dr Urban: I think, initially, it will be to listen and learn and then to build coalitions that can be effective in dealing with some of the great problems that the state is facing at the present time, not only in the medical area but also, of course, in other areas, such as education and drug abuse.

WMJ: Do you plan to be a leader on health care issues? Do you think that other legislators perceive you as an expert in those areas?

Dr Urban: I would say so. Yes, other legislators, I think, will be looking to my expertise in these areas. I'm not on the Health Committee at the present time, but I'm hopeful that when the opportunity presents itself I will become a member of that committee. I am on the Aging Committee, which indirectly deals with health issues. So health issues do come up in ways other than just through the Health Committee.

WMJ: You're on Aging and what other committees?

Dr Urban: My two namesake committees—Urban and Local Affairs and Urban Education. And I also think that as far as Urban Education is concerned, health issues play an important part—from the standpoint of inner-city students' ability to learn.

The Urban and Local Affairs Committee deals with relations among municipalities, and conceivably there will be health issues that would show up there too.

WMJ: Regarding issues besides health, I believe you mentioned education.

Dr Urban: Education, right. That's one of the things, of course, that we're putting more emphasis on now. As you recall, President Bush recently had a governor's conference, a summit, in Virginia, to discuss this. I think that as we move into the '90s, not only do we have to continue to recognize the importance of education so that we can maintain our competitiveness in world markets, but we also have to recognize that today's job requires a higher level of skill and education than

Continued on page 36

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Continued from page 34

a job did in the past. And I think in this regard we need to get business more involved in the process of education and at a lower level than high school.

WMJ: You also mentioned drug abuse. It seems like everybody has his or her own drug plan these days, the president, the governor, the attorney general.

Dr Urban: That's right and of course the governor's plan in many aspects, is more of the same plan. In other words, we spend more money for more enforcement and more prisons, which certainly is an aspect of it. But here again we need to stress education. We need to stress trying to relieve the social problems that bring about drug abuse. And even beyond that, I think we need to see a change in societal attitudes before we're really going to be able to make headway on this problem. I think one example of something that has been done in this area and began years ago was smoking—cigarette smoking. In my lifetime, it has gone from being the *in thing* to do to being the *in thing not* to do. I hope we can do the same thing as far as the broader category of drugs is concerned.

WMJ: Are there any other issues that you think you'll be getting involved in?

Dr Urban: Well, of course, the Indian treaty issue is one that's of great importance at this time. The question revolves around treaty rights, which the court says that the Indians have. The problem is that the courts won't be making a final determination in this situation for maybe eight to ten years. For us in Wisconsin, the question is what are we going to do in the meantime. The governor and his staff have come up with a plan as an interim solution, which includes programs for helping the Indians with their education problems, but involves a great deal of money. The cash payment aspect of this proposed solution has raised a lot of concern among the people and the legislators in the state.

WMJ: The buy-out proposal the attorney general initiated?

Dr Urban: The buy-out proposal. Some people view this as a bribe or a ransom. I think, though, that we have to recognize that we have an escalating problem here and that we need to address it because of the increasing confrontation that has been going on in northern Wisconsin. Interestingly enough, this is probably a bigger problem than some people realize. The area covered in these negotiations includes 30 counties and one-third of the state of Wisconsin, so it is a big problem.

Continued on page 38

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Continued from page 36

WMJ: During the next session, are there any specific issues that are going to have effects on Wisconsin physicians directly?

Dr Urban: Well, one issue that we haven't talked about is the abortion issue. There are currently two bills that relate to that. One would require parental consent for abortions for young women under 18 years of age. And the other would remove the criminal penalties that are on the books for both physicians and patients who either perform an abortion, in the case of the physician, or have an abortion, in the case of the patient. There's going to be considerable discussion on that.

The problem here as I see it is that the Supreme Court has taken several cases under advisement this fall that relate to this issue. So I feel it's premature, really, for the legislature to go ahead and change anything until we get the final word from the Supreme Court.

WMJ: You think the legislature will have time during its final floor period to deal with the issues you've mentioned?

Dr Urban: Well, it's very interesting how the legislature's floor sessions go. They start off fairly slow and easy but many times in the last week or even hours many things are decided. Coming from local government where we proceed with things very deliberately, with just a brief introduction into the Assembly, I've found that things can move along much faster, so I wouldn't rule anything out until the Legislature finally adjourns in November. We have to recognize, of course, that legislators will be back in session in January through March of next year, so that the issues that are not resolved in this fall session could be resolved in the spring session or rather I should say the late winter session and the abortion issue may be one of those.

WMJ: Our last question, Dr Urban, is how are you going to juggle your responsibilities as a physician and a politician and still have time for personal and family life?

Dr Urban: That's a very good question. I'm in the process of sorting it out at this time, but I think I've learned to pace myself, and think I'll be able to handle it without burnout. I've made adjustments in my practice—I've gone to part-time. I did promise to all the voters of my district that I would give my job in the Legislature the full attention that it deserves.

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Public health

Publicity, policy and trends in cigarette smoking: Wisconsin 1950–1988

Dan E. Peterson, MD, and
Patrick Remington, MD, Madison

THE SURGEON GENERAL has stated that "smoking remains the single most important preventable cause of death in our society . . . responsible for more than one of every six deaths in the United States."[1] To assess our state's progress in reducing this burden in Wisconsin, we looked at trends in cigarette consumption in the State of Wisconsin for the years 1950 to 1988.

Per capita sales of cigarette packs are available for the years 1950–1988 using data from the Tobacco Institute.[2] In this report, per capita sales are the total number of packs for which Wisconsin state excise tax was paid in a year divided by the number of Wisconsin residents age 18 and over. We plotted a two-year moving average to compensate for product stock effects (cigarette taxes are paid as excise tax at the time cigarettes leave tobacco distribution centers rather than as sales tax at the time of customer purchase).

In 1951, 105 packs of cigarettes were sold for every adult in the state (Figure). Per capita cigarette sales peaked in 1981 at 118 packs per Wisconsin adult. There are four periods with sustained (≥ 3 years) declines in tobacco sales: 1954–56, 1962–66, 1969–71, and 1982–84. The most dramatic decline is a 10% drop seen in the two year period from 1982 to 1983.

Comment

Since the first published studies in 1950 linking lung cancer with cigarette smoking (3) until today, there has been a steady increase in efforts to discourage the practice of smoking. These efforts have taken numerous forms including mandatory warning labels on cigarette packs, physician's advice to quit, negative advertising, worksite smoking cessation programs, increasing restriction on places to smoke, reduced insurance premiums for non-smokers, and taxes on cigarettes.

In Wisconsin, the first three periods of decline correlate with national public health events as previously identified by Warner.[4] The 1954–56 decline coincided with the first smoking and health "scare," initiated by a December 1952 *Reader's Digest* article "Cancer by the Carton." The decline from 1962–66 coincided with the Surgeon General's report of 1964. The 1969–71 decline coincided with the fairness doctrine, which mandated anti-tobacco advertisements on TV from 1967 until 1970.

The largest drop in cigarette sales is seen for 1982–84, years in which the largest cigarette tax increases were made (Wisconsin tax from 16 cents to 25 cents in 1981–82 and Federal tax from 8 cents to 16 cents per pack in 1983), and which saw the enactment in 1983 of Wisconsin's Clear Indoor Air Act (Figure).[5] This act mandated smoking restrictions in government worksites and public places to reduce the exposure of non-smokers to environmental tobacco smoke (passive smoking).

Despite the recent decline, per capita cigarette sales are as high now as in 1951—a time when there was virtually no public awareness of the

Continued on page 42

Fig—Per capita sales of cigarettes in Wisconsin 1950–1988.

Dr Peterson is an epidemic intelligence service officer with the Centers for Disease Control, Division of Field Services, assigned to the Section of Environmental and Chronic Disease Epidemiology, Wisconsin Division of Health. Dr Remington is a medical epidemiologist in the Chronic Disease Surveillance Unit, Section of Environmental and Chronic Disease Epidemiology, Wisconsin Division of Health. Part of this work was made possible by a grant from the National Cancer Institute, grant number R01-CA-46883. Reprint requests to: Patrick Remington, MD, Wisconsin Division of Health, PO Box 309, Madison, WI 53701-0309. Copyright 1989 by the State Medical Society of Wisconsin.

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Continued from page 40
health risks of smoking. With this sustained public exposure to tobacco over the past several decades it is likely that smoking-related health problems will continue for many years at the current epidemic proportions.

Despite the limitations inherent in an ecologic study it would seem that public health measures such as increased taxes on cigarettes, increased restrictions on smoking in public places, and negative publicity can be effective in reducing cigarette consumption. As physicians we need to use our position and credibility to influence tobacco policies—in addition to our efforts in the clinical setting—to achieve our goal of better health for our patients.

Acknowledgment
The authors appreciate the contributions made by David Nordstrom, of the Marshfield Medical Research Foundation, and Drs Robert Gunn and Daniel Sosin, of the Centers for Disease Control.

References

1. US Department of Health and Human Services. Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No (CDC) 89-8411, 1989.
2. Tobacco Institute. The Tax Burden on Tobacco. Vol 23:1988.
3. Wynder EL, Graham EA: Tobacco smoking as a possible etiologic factor in bronchiogenic carcinoma: A study of 684 proved cases. *JAMA* 1950;143: 329–396.
4. Warner KE: Cigarette advertising and media coverage of smoking and health. *N Engl J Med* 1985;312:384–388.
5. Section 101.123, 1987–88 Wisconsin Statutes.

Series coordinators

The Wisconsin Division of Health's Henry Anderson, MD, chief of the Section of Environmental and Chronic Disease Epidemiology, and Patrick Remington, MD, are coordinating this public health series for the *Wisconsin Medical Journal*.

Next month, the National Cancer Institute will release a Request for Proposals for the American Stop Smoking Intervention Study for Cancer Prevention (ASSIST), a collaborative project involving the American Cancer Society and the Wisconsin Division of Health.

For further information about ASSIST or tobacco control, contact Dr Remington at 608-267-3835.

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AIR FORCE

Physician briefs

An * indicates an SMS member physician.

Laura L. Bloomquist, MD,* and **Lisa Mink, MD,** recently joined the staff at Sparta Clinic and St Mary's Hospital. Dr Bloomquist received her medical degree from the University of Minnesota and completed a residency at St Francis-Mayo Family Residency in Rochester. She is a family practitioner. Dr Mink received her medical degree from Washington University in St Louis and completed a residency at St Mary's Hospital in Madison.

James E. Rauchenstein, MD, of Racine, recently joined the Racine Medical Clinic. Dr Rauchenstein, a pediatrician, graduated from Northeastern Ohio College of Medicine and served his residency at Children's Hospital Medical Center in Akron.

William Long, DO, has joined the medical staff at St Catherine's Hospital in Kenosha. A specialist in obstetrics and gynecology, Dr Long graduated from the Texas College of Osteopathic Medicine in Fort Worth and served his residency and internship at Flint Osteopathic Hospital in Michigan. Most recently he was chairman of the Department of Surgery and service chief of Obstetrics and Gynecology at Herrick Memorial Health Center in Tecumseh, Mich.

Manucher J. Javid, MD,* chair of the Department of Neurological Surgery at the University of Wisconsin Medical School, received the Distinguished Alumnus Award at the 50th anniversary of neurosurgery celebration at Massachusetts General Hospital in September. Dr Javid completed his residency at the hospital in 1952.

Marie Hobart, MD, and **Clemens S. Schmidt, MD,*** both psychiatrists, recently joined the staff of the Douglas Mental Health Clinic in Viroqua. Dr Hobart graduated from the Yale Medical School in New Haven, Conn, and served her residency at Massachusetts General Hospital in Boston. Dr Schmidt, the clinic's medical director, had been in private practice in Madison for the past 15 years. He graduated from the University of Wisconsin Medical School, served an internship at Madison General Hospital in Madison, and completed a residency at the University of Wisconsin–Madison.

Robert A. Dickman, MD, was recently appointed medical director at the Northeast Psychiatric Institute in Manitowoc. A psychiatrist, Dr Dickman graduated from Tufts Medical School in Boston and served an internship at the University of Wisconsin–Madison. He completed a residency at the Boston VA Hospital and a fellowship in child psychiatry at Massachusetts General Hospital.

Susan Kao, MD, has joined the staff of the Milwaukee Medical Clinic. She

received her medical degree from Indiana University School of Medicine and completed a residency at the Medical College of Ohio. She is an ophthalmologist.

Ronald K. Wells, MD,* of Elm Grove, has been elected chief of the Dept of Pediatrics at Children's Hospital of Wisconsin in Wauwatosa. Dr Wells is in private practice in Brookfield and is a clinical professor of pediatrics at the Medical College of Wisconsin.

Sigurd B. Gundersen, Jr, MD, of La Crosse was elected secretary-treasurer of the American Group Practice Association during the association's 40th annual conference in Minneapolis. Dr Gundersen graduated from Harvard University Medical School and is board certified in general surgery. He is a member of the medical staff of Lutheran Hospital.

Eugene K. McClellan, MD, has been appointed chief of staff at the Veterans Affairs Medical Center in Tomah. He previously served as chief of the Laboratory Service at the center. Before coming to Tomah, Dr McClellan served as a medical examiner with the Los Angeles County Medical Examiners Office.

County society news

Brown. Twenty-five members were present at the September meeting of the Brown County Medical Society. Officers of the county society were the speakers and the duties and functions of the officers were discussed. Thirteen physicians were accepted to membership. They are Drs R. Dale Davis, James W. Grace, Timothy J. Kennedy, John A. Jones, Thomas L. Mahoney, Patrick McKenzie, Michael G. Medich, Stephen F. Sehring, John R. Stamm, Christopher Watson, Edwin S. Watts, Stephen J. Dietrich and David L. Paton.

Winnebago. At the September meeting of the Winnebago County Medical Society meeting, 36 members and four guests were present. Speakers for the evening were senators Michael Ellis and Carol Buettner, and representatives Esther Walling, Gregg Underheim, and Judith Klusman. They spoke on "Upcoming Medically-Related Legislation." Jose J. Alba, MD, of Neenah, was accepted to membership in the society.

Junith M. Thompson, MD,* recently opened her practice in Kenosha. A native of Haiti, Dr Thompson graduated from the Medical College of Wisconsin and specializes in obstetrics and gynecology.

Patrick J. McKenzie, MD,* recently joined Orthopaedic Associates in Green Bay. Dr McKenzie graduated from the Medical College of Wisconsin, where he also completed a residency in orthopedic surgery. In addition, he studied arthroscopic surgery at the American Sports Medicine Institute in Birmingham, Ala.

Richard J. Qualy, MD,* recently joined the staff of the Medical Associates in Darlington. Dr Qualy graduated from the University of Wisconsin Medical School in Madison and completed a residency at Good Samaritan Hospital in Milwaukee.

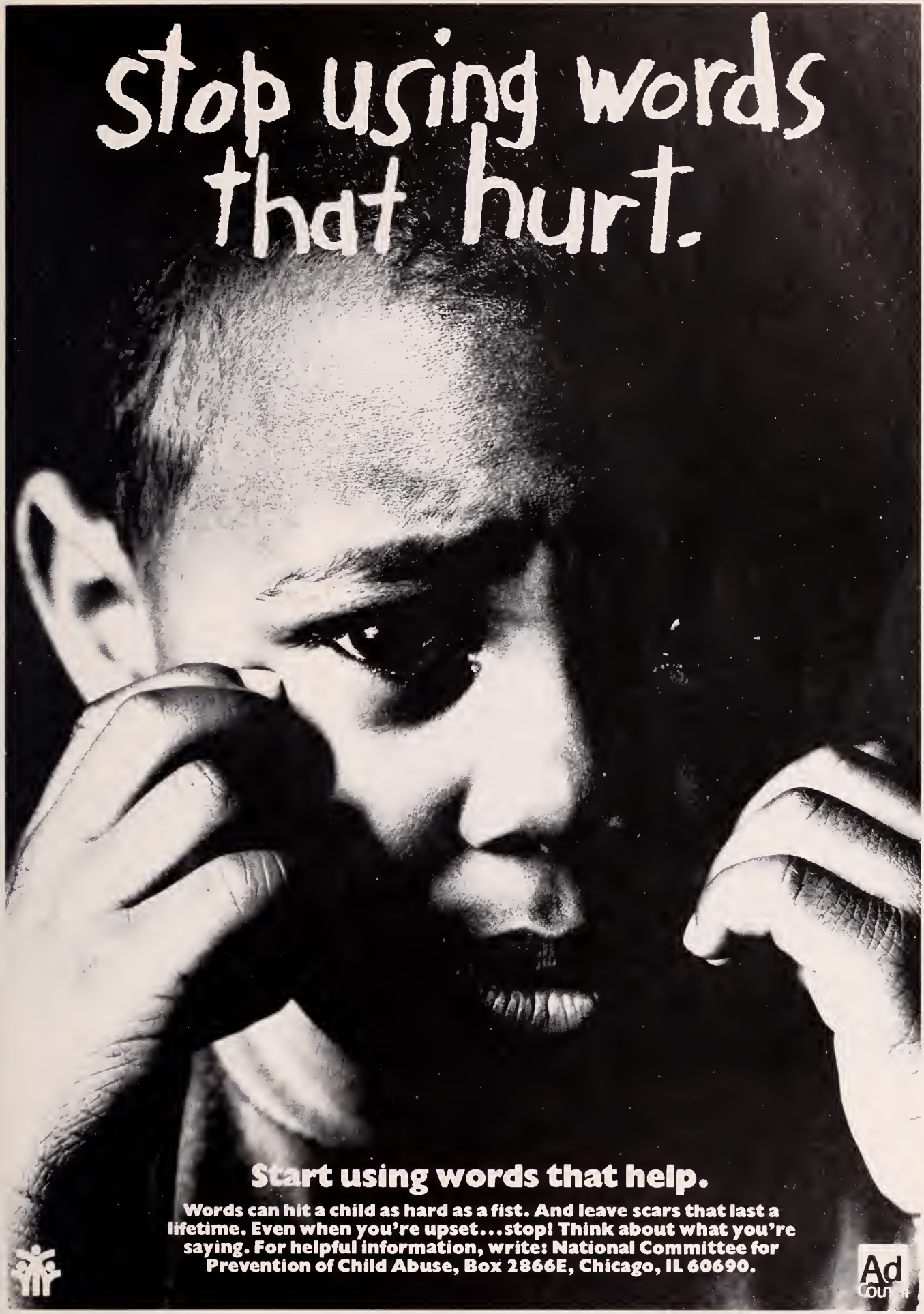
AMA awards

The Wisconsin physicians listed below recently earned AMA Physician Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

August 1989

*Basu, Sailendra N., Wausau
*Beltaos, Efstathios, Marshfield
Bennett, Peter G., Stevens Point
*Boxer, Richard J., Milwaukee
*Fletcher, Fred W., Eagle River
*Garitanom, William W., Marshfield
*Herbert, Timothy G., Marshfield
*Hoyer, John K., Rice Lake
*Jachowicz, Robert G., Hales Corners
*Kryda, Michael J., Marshfield
*Kuehner, Marvin E., Marshfield
*Loescher, Thomas M., Appleton
Marks, Stanton A., Milwaukee
*Park, Roger W., Marshfield
*Schmitz, John T., Milwaukee
*Smigielski, Kenneth M., Milwaukee
*Tiu, Alfonso L., West Allis
Turkington, Roger W., Milwaukee
*Wagner, Marvin, Milwaukee
Warner, John J., Marshfield
*Zajac, Dorothy J., Janesville
*Ziemer, John L., Ladysmith

On page 54 of the September 1989 *WMJ* Basil M. Salaymeh, MD, of Wauwatosa, was inadvertently omitted as being a member of SMS. Dr Salaymeh is a member in good standing of SMS.



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Rules:

- Papers must be original, unpublished, and credited to one student author (although multiple authors may be listed).
- To ensure scientific validity and responsibility, each entry must be co-authored by a member of the faculty. (Only the student author will receive the award.)
- Contestants should focus on nursing intervention to demonstrate improved care and results, strategies which augment the delivery of effective care by nurses, or approaches to encouraging greater physician-nurse collaboration in delivering care.
- Entries are limited to 10 pages, typewritten, double-spaced pages, with 1-inch margins.
- Illustrations are admissible, but must be included in the 10-page length limit.

Judging: An initial panel of judges, comprised of deans from three nursing schools or their designees, select the top three papers from the total number of entries. The Editorial Board of the *Wisconsin Medical Journal* will select the winner from these three papers. In the case of a tie, the winner will be selected by the medical editor of the *Wisconsin Medical Journal.* The medical editor has final authority.

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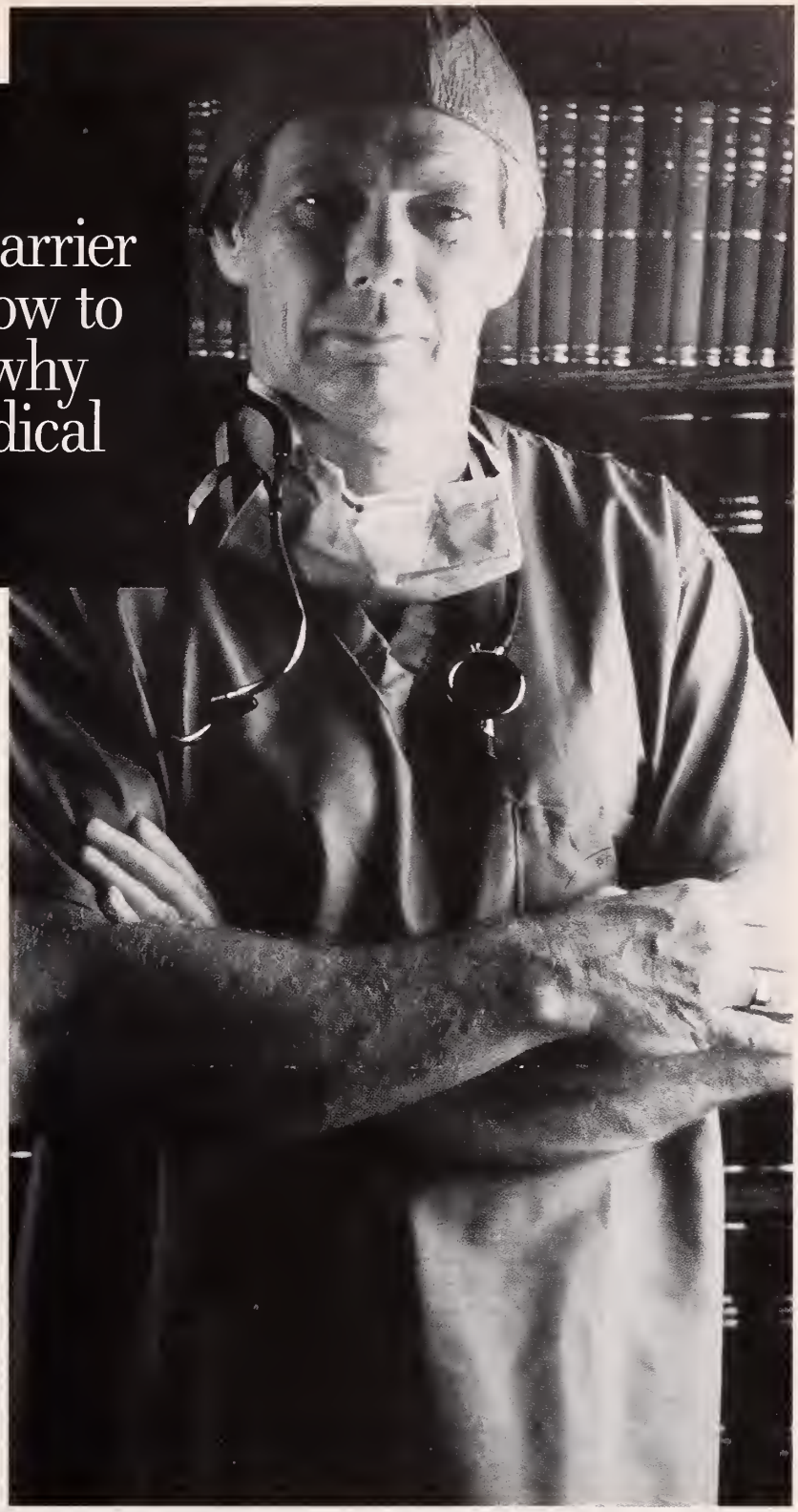

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Membership update

The following information is being provided from membership reports and from individual members for updating the 1989 Membership Directory as published in the August 1989 issue of the *Wisconsin Medical Journal*. Because of space limitations, address changes and phones numbers will not be included in this update, although they will be changed in the SMS membership records.

County transfers will be included when processing has been completed by the membership records staff.

Changes in practice specialties (as used by the AMA) and changes in board-certified specialties as listed by the American Board of Specialties (see the August 1989 membership directory) are included. Practice specialties appear before the slash (/) and board-certified specialties appear after the slash.

Britton, Jeffrey W.
5807 Woodside Lane
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Costakos, Dennis T.
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NPM PD/PD

Cramer, Gregory L.
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La Crosse, WI 54601
IM GE/IM

Gavin, Andrea M.
414 S 9th St
La Crosse, WI 54601
FP

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Milwaukee, WI 53217

Herrmann, Jurgen
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Wauwatosa, WI 53226

Jones, Norman E.
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La Crosse, WI 54601
R

Lawler, Michael P.
815 S 10th St
La Crosse, WI 54601
OBG/OBG

Mc Inerney, Gerald T.
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West Allis, WI 53227

Morgan, Christopher B.
1531 Madison St
Appleton, WI 54915
PM OS

Olson, Cheri L.
700 West Avenue S
La Crosse, WI 54601
FP/FP

Poullette, George T.
700 West Avenue S
La Crosse, WI 54601
FP

Savage, Stephen G.
1818 N Meade St
Appleton, WI 54911

Scott, Patrick J.
2204 Sims Place, #7
La Crosse, WI 54601
GP

Obituaries

John F. Ridley, MD, 67, of Nashotah, died Aug 3, 1989, in Nashotah. He was born July 24, 1922, in Hartland, and practiced medicine there. Dr Ridley graduated from Marquette University School of Medicine, and served his internship at Milwaukee County General Hospital. He was a veteran of World War II, serving in the US Army Air Corps. Surviving are his widow, Mary; two daughters, Ann and Sue, both at home; and three sons, Joseph, at home, Phillip, of the Town of Summit, and Steven, of Pewaukee Lake.

James D. Kramer, MD, 64, of Lake Tomahawk, died Aug 10, 1989, at Lake Tomahawk. He was born Sept 25, 1925, in Akron, Ohio, graduated from Western Reserve University in Cleveland, and served his internship at Georgetown University Hospital in Washington, DC. His residency was completed at Georgetown University Hospital and Cleveland City Hospital. Dr Kramer opened his medical practice in 1957 in Wausau, and joined the Wausau Medical Center in 1967. He was a member of the board of directors serving from 1972 to 1976 and from 1983 to 1986. He also served as president of the Medical Center from 1974 to 1975. He was a member of the Marathon County Medical Society, the SMS, and the AMA. Surviving are his widow, Marilyn; two daughters, Ann, of Reno, and Kathryn, of Minneapolis; three sons, Eric, of Minneapolis; Carl, of San Francisco, and Clifford, of Wausau.

Josiah A. McHale, MD, 64, of Racine, died Aug 21, 1989, in Racine. He was born Aug 29, 1924, in Boston, and graduated from Harvard Medical School. Dr McHale practiced medicine in Racine until his retirement in 1987. He had served as chief of medicine at both St Luke's and St Mary's hospitals. He also was active with the Lincoln Lutheran Home and the Siena Center. Dr McHale served in the US Army in World War II and in the Korean Conflict. He was a member of the Racine County Medical Society, the SMS, and the AMA. Surviv-

ing are his widow, Eileen; one daughter, Margaret, of Montello; three sons, Kevin, of Green Lake, Mark, of Racine, and Josiah, of Minneapolis.

Harold T. Schroeder, MD, 76, of Racine, died Aug 18, 1989, in Racine. Dr Schroeder was born on April 15, 1913, in Milwaukee, and graduated from Marquette University Medical School. His internship was served at Milwaukee County General Hospital, and his psychiatry residency was completed at Milwaukee Psychiatric Hospital. He was a member of the American Psychiatric Association, the Racine County Medical Society, the SMS, and the AMA. Surviving are his widow, Dorothy; and daughter and son-in-law, Mary Beth and Jim Jung, of Racine, and two granddaughters.

Tributes to loved ones can help others

The memorial program of the Charitable, Educational and Scientific Foundation of the SMS offers physicians a unique opportunity to provide a living memorial to a loved one or friend through a gift to the foundation. A memorial contribution can provide financial aid to a needy medical student, help stimulate research on behalf of public health or aid in the preservation of Wisconsin's medical history. When a memorial gift is made to the foundation, the deceased person's family receives a special card with the name of the donor. For more information, contact the foundation staff at the SMS.

Robert C. Schmitz, MD, 78, of Madison, died Aug 18, 1989, in Madison. He was born on Nov 22, 1910, in Milwaukee, and graduated from the University of Wisconsin Medical School. He served in the US Army Medical Corps during World War II. Dr Schmitz had served on the medical staff of Madison General Hospital in the Department of Radiology. He was a member of the Dane County Medical Society, the SMS, and the AMA. Surviving are his widow, Ruth; four sons, Don, of Milwaukee; Thomas and David, of Madison; William, of Sun Prairie; and three daughters, Alleen, Ruth, Pamela, of Madison; and two stepchildren, Virginia, of Pensacola, Fla, and Gregory Hilden, of Madison.

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Blue Book update

Please refer to page 80 of the 1989 issue of the July 1989 Blue Book edition of the *WMJ*. The new officers of the Outagamie County Medical Society are:

- Charles N. Kagen, MD, president, 100 W. Lawrence St, Appleton, WI 54911.
- Peter V. Podlusky, MD, vice president, 3000 Edgemere, Appleton, WI 54911.
- Jan C. Bax, MD, secretary-treasurer, 506 E. Longview Drive, Appleton, WI 54911.

Also, the following physicians are the new officers for Barron-Washburn-Burnett County Medical Society, which appeared on page 76:

- William A. Smith, MD, president, 1020 Lake Shore Dr, Rice Lake, WI 54868.
- Douglas J. Raether, MD, secretary, 1306 Duke St, Rice Lake, WI 54868.

CES Foundation
of the State Medical Society of Wisconsin

The persons and organizations named below made contributions to the Charitable, Educational and Scientific Foundation of the State Medical Society of Wisconsin during the months of August and September 1989.

August 1989

Voluntary contributions
Donald Calvy, MD
C.M. Carney, MD
William J. Listwan, MD
Hiro Nishioka, MD
Robert Ramlow, MD
Robert P. Smith, MD
State Medical Society of Wisconsin
Her-Lang Tu, MD

Lakeside endowment fund
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Memorials
Dr and Mrs Irwin J. Bruhn
Dane County Medical Society
Mrs Stephen Mokrohisky
SMS Services, Inc
State Medical Society of Wisconsin
John and Jean Steele
Larry and Margaret Wiersum

In memoriam
Eugene P. Austin
Charles Geppert, MD
Ralph Gorens, MD
Elsie Schaid
John Sivak
Donna Van Rensum

General student loan fund
Neil Bard, MD
Nelson Muffler Company (NMC Projects)

Barbara Scott Maroney fund
Dr and Mrs Walter Smejkal

September 1989

Voluntary contributions
Charles P. Benedict, MD
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C. V. Ihle, MD
Samuel B. Johnson, MD
Robert Lehner II, MD
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State Medical Society of Wisconsin
Jack Strong, MD
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Lakeside endowment fund
Kenneth Viste Jr, MD

Beaumont 500 Club
Sauk County Medical Society
David Weber, MD
Winnebago County Medical Society

Memorials
Alice Ballweg
Fond du Lac County Medical Society Auxiliary
Dr and Mrs E. J. Nordby
State Medical Society of Wisconsin

In memoriam
Kenneth L. Matson, MD
Hubert C. Miller, MD
Robert Schmidt
Richard Stafford
Ronald W. Steube, MD
Thelma Twohig

Sparkling occasion
Mark Adams
Thomas and Diane Adams
Mary Barham
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Dr John and Mary Mullooly
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Dr and Mrs Edwin L. Overholt, MD
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Dr William and Janet Treacy
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Wisconsin Medical Journal

Instructions for authors

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Manuscripts are considered with the understanding that they have not been published previously and are not under consideration by another publication.

Each manuscript must be accompanied by a cover letter containing the following sentence: "In consideration of the *Wisconsin Medical Journal*'s taking action in reviewing and editing this submission, the author(s) hereby transfer(s), assign(s), or otherwise convey(s) all copyright ownership to the *WMJ* in the event that this work is published in the *WMJ*." All co-authors must sign the letter.

The cover letter must also designate one author as correspondent and provide a complete address and telephone number. All coauthors should have contributed to the study and manuscript preparation. They should be thoroughly familiar with the substance of the final manuscript and be able to defend its conclusions.

The *Journal* expects authors to disclose any commercial associations that might pose a conflict of interest in connection with the submitted article. All funding sources supporting the work should be routinely acknowledged on the title pages, as should all institutional or corporate affiliations of the authors.

Editing

All manuscripts will be edited by the *Journal* staff for clarity, organization, grammar, spelling, and punctuation, and in accordance with AMA style. Suggestions for titles are welcome, but are subject to the constraints of clarity, space, grammar and style.

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Manuscript preparation

- Submit papers to: *Wisconsin Medical Journal*, PO Box 1109, Madison, WI 53701; Ph: 608-257-6781 or 1-800-362-9080; FAX: 608-283-5401.
- Authors are encouraged, whenever possible, to submit manuscripts on computer disks, using IBM-compatible software. Electronic submissions are also possible. A printed copy must accompany all disk and electronic submissions.
- Typed manuscripts must be submitted in triplicate (one original, two photocopies). Type on one side only of standard-sized white bond paper, using 1-inch margins. Double-space throughout.
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Abstract—150 words or less, stating the problem considered, methods, results and conclusions.

Methods—Describe the selection of observational or experimental subjects, including controls. Identify the methods, procedures and equipment well enough to allow replication.

Results—Provide results in the test, tables or illustrations. If tables or illustrations are used, emphasize or summarize only the most important observations in the text.

Discussion—Discuss the conclusions that follow from the results, as well as their limitations and relations to other studies. Show how the conclusions relate to the purpose of the study. Recommendations, when appropriate, may be included.

References—Limit to 20. Authors are responsible for the accuracy and

completeness of references. References must follow AMA style and abbreviations of journal names must follow those in *Index Medicus*. Consult the *Wisconsin Medical Journal* for examples of proper form.

• Acknowledge all illustrations and tables taken from other publications, and submit written permission to reprint from the original publishers.

Style

• Do not use abbreviations in the title or abstract, and limit their use in the text. Acceptable abbreviations of clinical, technical and general terms can be found in the AMA *Manual for Authors and Editors*.

• Avoid the use of medical jargon. Words or phrases that are particular to conversations among medical personnel are inappropriate in scientific writing. (Examples: For "presented with" use "had;" for "experienced a weight loss" use "lost weight.")

• Authors are responsible for supplying the full and correct names of drugs. Use generic names of drugs, unless the specific trade name of a drug is directly relevant to the discussion. If the author so desires, brand names may be inserted in parentheses.

• Units of measure are to be provided in metric, followed by International System units (SI) in parentheses.

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Emergency medicine, Wisconsin, FP or IM. Full-time, board eligible/certified physician wanted to join two stable FPs for eventual partnership. ED volume 11,000 + serving family-oriented county of 82,000. Cost of living/income ratio excellent. Salary and benefits competitive. Easy access to Milwaukee. Please send CV to L. Moses, Physician Liaison, PO Box 1450, Manitowoc, WI 54221-1450. 11/89

Baraboo, Wisconsin. Emergency Department at St Clare Hospital seeks medical director and full-time staff. Approximately 10,000 annual visits. Compensation to be negotiated. Opportunity to develop emergency room practice group. Pleasant area in which to live, near Devil's Lake and the Baraboo Hills. Also, Madison nearby. Contact: Thomas Warwick, Executive Vice President, St Clare Hospital, 707 14th St, Baraboo, WI 53913; 608-356-5561, ext 492. 11tfn/89

Family practice physician wanted to join non-profit community health center program. Modern facility in rural community in western upper peninsula of Michigan. Competitive salary, excellent benefits, loan repayment available. Immediate opening. Send CV to Donna Jaksic, Executive Director, Upper Peninsula Association of Rural Health Services, 220 West Washington, Suite 430, Marquette, MI 49855. EOE. 11/89

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Family practice. Southwest Iowa community of 7800 (servicing 27,000) seeking a family physician to join well-established six-doctor practice. Modern facility adjacent to 100-bed hospital. Income guaranteed first year and full partnership after first year. For additional information write to Atlantic Medical Center, Sue Marsh, Office Manager, PO Box 429, Atlantic, Iowa 50022 or phone 712-243-2850. 11-12/89;1/90

Dermatology. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R. D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/89

Part-time urgent care position available in Janesville, Wisconsin. Competitive salary along with a pleasant facility in which to practice. Please contact Brenda Werfal at 608-756-6166 for further information. 11/89

Radiologist. A three-man radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive 126-bed, two hospital system located in Iron Mountain, Michigan's upper peninsula. We have a service area population of over 45,000. Contact and/or send resume: Doctors Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4565. 11-12/89

West Bend, Wisconsin. Seeking full-time and part-time emergency physicians for 100-bed hospital 35 miles north of Milwaukee. Excellent compensation, malpractice insurance provided and benefit package available to full-time staff. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p11/89

Emergency physician. Outstanding opportunity for qualified individual to join incorporated group of three BP/BC emergency physicians in a unique, democratic and thoroughly enjoyable practice. Excellent compensation and complete career opportunities are offered in a very livable community offering a diversity of recreational and cultural pursuits. Call or write Mark Singsnak, MD, NET, PC, Emergency Department, Mercy Health Center, Dubuque, IA 52001. p11-12/89;1/90

Antigo, Wisconsin. Seeking director, full-time and part-time emergency physicians for low volume facility located in sportsman's paradise. Excellent compensation and paid malpractice insurance. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 or in Michigan 1-800-632-3496. p11/89

Family practice. Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setup his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service area population of over 45,000. Contact: Dr Paul Hayes, Anderson Memorial Hospital, Main St, Norway, Michigan 49870; 906-563-9243 or office 906-563-9255. 11-12/89

Lake Winnebago, Wisconsin area. Seeking director, full-time and part-time emergency physicians for low volume 60-bed hospital. Attractive compensation, full malpractice insurance coverage and benefit package available. Contact: Emergency Consultants, Inc, 2240 S Airport Rd, Room 36, Traverse City, MI 49684; 1-800-253-1795 in Michigan 1-800-632-3496. p11/89

Minnesota. Family physician needed for broad base primary care, excellent community hospital with consulting and specialty support. Family oriented community with excellent schools, services, and easy access to Metro area. Guaranteed salary, full benefits, and bonus. For confidential consideration, Contact: Mary Jo Cordes, MDsearch, PO Box 16458, St Paul, MN 55116; 612-454-7191. p11-12/89

Orthopedic surgeon. A progressive 126-bed two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's upper peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr Roberts will guarantee $200,000 plus malpractice insurance, office space, CME, vacation and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4500. 10-11/89

Twenty-nine physician multispecialty clinic located in desirable East Central Wisconsin location is seeking Board-certified or Board-qualified orthopedic surgeon to round out its services. Lab, x-ray, excellent hospital. Liberal guarantee and benefits. If interested contact D.F. Sweet, MD, Fond du Lac Clinic, SC, 80 Sheboygan St, Fond du Lac, WI 54935. 9tfn/87

Physicians Exchange

continued

Family practice opportunities in a group setting. Located in a family-oriented economically strong small city. Located near lakes and metro area. Contact Andrew V. Lagatta, president & CEO, Clintonville Community Hospital, 35 N Anne St, Clintonville, WI 54929; ph 715-823-3121. p7–12/89

Rheumatologist—the Racine Medical Clinic, a 37-physician multispecialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R.D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 11tfn/87

Internist (BC/BE) needed by growing multi-specialty group to join ten-member department at two suburban locations. The clinics are well-established with comprehensive on-site diagnostic services. Attractive benefit package with guaranteed salary and partnership potential in one to two years. Please send CV in confidence to: Administrator, Harwood Medical Associates, SC, 12011 W North Ave, Wauwatosa, WI 53226. 10–11/89

GREAT LAKES — OB-GYN / Internal Medicine / Gastroenterology / Family Practice / General Surgery — Attractive opportunities in *Wisconsin, Indiana, and Michigan* for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions at 1-800-243-4353 (in Milwaukee call 243-9500).

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Central Wisconsin-BC/BE general internist to join expanding 27-physician multi-specialty group with five internists, two nephrologists and one gastroenterologist. Very desirable university city with many outdoor recreational and cultural amenities. Attractive income and ownership arrangements. Other areas of expansion may provide opportunity for spouse if also a physician. Send CV to: Administrator, Rice Clinic, SC, 2501 Main St, Stevens Point, WI 54481 or call collect 715-344-4120. 11tfn/89

Dermatologist, psychiatrist, allergist, internal medicine. A progressive 126-bed two-hospital system is seeking the above specialists to establish practices in the Iron Mountain area of Michigan's upper peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, C02 laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4500. 10–11/89

Internal medicine and family practitioner BC/BE, to join a progressive 12-physician group practice in July 1990. Rural college town 30 miles from St Paul, Minn, with community hospital. Contact R. M. Hammer, MD, River Falls, WI 54022; ph 715-425-6701 or 612-436-8809. c10tfn/89

Radiologist. Three board-certified radiologists in Beloit, Wisconsin, seek a fourth for an active diagnostic and interventional practice in a community hospital, multi-specialty clinic, and private office. All imaging modalities are represented. The hospital is affiliated with the University of Wisconsin. Enjoy a great practice not far from Madison, Milwaukee, and Chicago. Write or call Thomas J. Lisk, MD, Beloit Radiology, Ltd, 1969 West Hart Rd, Beloit, WI 53511; 608-364-5266 or 815-623-6010. An excellent opportunity. p10–12/89

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

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UW Office of Rural Health
810 University Bay Drive
Madison, WI 53705
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7–12/89;1–6/90

Family practice. Four-physician group seeks fifth MD (BC/BE) to join growing practice located within one hour of Madison and Milwaukee. Full benefits, first-year salary guarantee. One hundred and two bed community hospital located within one block from office. Send CV to Betty J. Parish, Clinic Mgr, PO Box 49, Watertown, WI 53094; ph 414-261-5204. 9–12/89; 1/90

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

Beaumont Clinic, Ltd, (a 22-physician multi-specialty clinic) seeks a BC/BE internist to join a five-physician general internal medicine department. Beaumont Clinic, Ltd, offers a modern, well-equipped facility including in-house laboratory, x-ray, stress testing, EKG, PFT, and mammography. Other specialties represented include general surgery, OB/GYN, pediatrics, pulmonary, hematology, allergy, and family practice. Green Bay is a regional medical center offering state-of-the-art facilities, equipment, and sub-specialty referral staff. Salary guarantee with incentive. Excellent benefits. Send letter of introduction, curriculum vitae, and three references to Director of Recruitment, Beaumont Clinic, Ltd, 1821 S Webster Ave, Green Bay, WI 54301. 10–12/89

Manitowoc, Wisconsin. Multi-specialty group of 18 physicians seeking BC/BE internal medicine, OB/GYN, and oncology specialists. First year salary guarantee with ownership potential after first year. Excellent fringe benefit package. Please send current curriculum vitae to James A. Robinson, Administrator, Manitowoc Clinic, 601 Reed Ave, PO Box 1270, Manitowoc, WI 54221-1270. 10–12/89

Northern Wisconsin
Internal Medicine physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Physicians Exchange

continued

General board-eligible internist desires smaller city practice with one or more MDs. City now in practice is Milwaukee. City size preferred 30,000 to 100,000 plus/minus. Would need to give present employer 45 day notice. Call 1-414-258-1783 after 6:00 pm. p10–12/89

Family practice, internal medicine, and general surgery practice opportunities. Rural Lake country community is seeking the above practitioners to join a busy 12-physician multi-specialty group. Quality, comfortable living environment, multiple recreational activities, fine educational opportunities and cultural activities abound. Salary and fringe benefits very liberal. Send curriculum vitae or inquires to: Lake Region Clinic, PC, Attn: Joel Rotvold, PO Box 1100, Devils Lake, ND 58301, or call collect at 701-662-2157 for further information. 10–12/89

BC/BE Internist. Group of three internists would like to add fourth to busy practice in rural friendly northeastern Wisconsin community. New clinic attached to modern community hospital. Send CV to: Artwich Clinic, 815 S Main St, Oconto Falls, WI 54154. p10–12/89

Family practice. Exciting family practice opportunity available for (BC/BE) family physician at satellite location of expanding multi-specialty group. Due to the impending retirement of two general internists at satellite location, an established base of patients is available for two family practitioners to begin a practice and develop a department. The clinic has an excellent reputation, highly motivated support staff with diagnostic services available on-site. Interested candidates please send CV in confidence to: Administrator, Harwood Medical Associates, SC, 12011 W North Ave, Wauwatosa, WI 53226. 10–11/89

Internist—BC/BE. Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs or subspecialists in internal medicine. Send CVs to Michael Sergi, MD, 14 North Main St, Fond du Lac, WI 54935. p8–12/89;1/90

Northern Wisconsin
Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Emergency room position just south of Milwaukee. Group covers two ER and walk-in. Competitive salary and full fringes. Contact: J. Linstroth, MD, 414-835-7761. 8tfn/89

Family practice. 37-physician multispecialty group conveniently located between Chicago and Milwaukee. Well-equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send current curriculum vitae to Roger D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406. 4tfn/88

Internist BE/BC. North Shore Internal Medicine, PC, is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to 2420 First Ave, South, Escanaba, MI 49829; ph 906-786-1563. 10tfn/88

Family practice. Seeking physician for established satellite clinic in rural northeastern Wisconsin. Excellent salary and benefits. Modern clinic with light call schedule. Contact: Artwich Clinic, 815 South Main St, Oconto Falls, WI 54154. p10–12/89

Practice for sale. Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, WI 53122. 8tfn/89

For sale. Independent, well established, busy family practice in 56,000 population west central Wisconsin city. Patient records and medical equipment. Excellent base of prepaid medical patients. Two excellent open staff hospitals. Contact: Patrick J. Bates, MD, 1524 Bellinger St, Eau Claire, WI 54703; ph 715-835-9678. 10–11/89

Ski-Vail, Beaver Creek, Colorado. Beautiful two-bedroom, two-bath condo. 1100 sq feet. Located at the entrance of Beaver Creek. For more information call Herald Trimmell, DDS; ph 414-567-8386. p11–12/89

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For sale. S1. used Midmark III electric table less than 20% of cost—you pick up. Ph 319-556-3646, Monday—Friday. 9–11/89

Medical Meetings—Continuing Medical Education

November 26–December 1, 1989 (Illinois): 75th Scientific Assembly and Annual Meeting of the Radiological Society of North America, at McCormick Place in Chicago. g7–11/89

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THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

OTHER MEETINGS in the United States are published in the first issue of each month of the *Journal of the American Medical Association.*

Medical Meetings—Continuing Medical Education

continued

AMA

December 6–8, 1989: *Neurology for the non-neurologist.* The Ambassador West Hotel, Chicago, Ill. Contact: Office of Continuing Medical Education, Rush-Presbyterian-St Luke's Medical Center, 600 S Pauline, Chicago, IL 60612; ph 312-942-7095. 10/89

December 3–6, 1989: Interim House of Delegates, Honolulu.
June 24–28, 1990: Annual AMA House of Delegates, Chicago.
December 2–5, 1990: Interim House of Delegates, Orlando.
June 23–27, 1991: Annual AMA House of Delegates, Chicago.
December 8–11, 1991: Interim House of Delegates, Las Vegas.
June 21–25, 1992: Annual AMA House of Delegates, Chicago.
December 6–9, 1992: Interim House of Delegates, Nashville.

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Medical College of Wisconsin 41
Physician Resource Network
Medical Protective Company 47
Milwaukee Psychiatric Hospital 37
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Yocon®
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Peppino's 13
Physicians Insurance Company of Wisconsin 39
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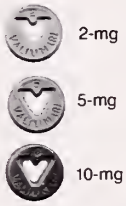

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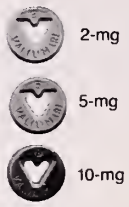

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December 1989 Vol. 88 No. 12

Contents

Opinions

3 *Secretary's report*
We cannot afford to postpone hard choices
by Thomas L. Adams, Madison

4 *Editorials*
Solid family values make sense
by Jeffrey H. Lamont, MD, Wausau

4 *Special*
The enigma of the stigma of ECT: 50 years of myth and misrepresentation
by Donald P. Hay, MD, Linda Hay, RN, PhD, and Herzel Spiro, MD, PhD, Milwaukee

8 *Letter*
Breast cancer detection error
by Paul A. Larson, MD, Neenah

Scientific

19 Acute renal failure in octogenarians
by Philip J. Dahlberg, MD, and Ana Schaper, RN, La Crosse

23 Estimating nutritional intake in nursing home residents
by Elizabeth Langer, MS, RNC, Paul J. Drinka, MD, and Susan K. Voeks, PhD, King

25 Serum free levels and evaluating anticonvulsant drug interations
by Norman C. Reynolds, Jr, MD, and V. Shrinivas Murthy, MD, PhD, Milwaukee

28 Aortitis due to metastatic gas gangrene
by Sheila L. Momont, MD, and Edwin L. Overholt, MD, La Crosse

Socioeconomics

33 *Loss prevention*
The expert witness
by Thomas M. Kidder, MD, Milwaukee

35 *Public health*
Project SENSOR: Occupational disease and injury surveillance
by Henry A. Anderson, MD, Dee Higgins, RN, and Lawrence P. Hanrahan, MS, Madison

Organizational

39 Physician briefs
40 Obituaries
42 County society news
42 Specialty society news
43 Index to articles: 1989

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Secretary's report

We cannot afford to postpone hard choices

Our state's overall quality of medicine and health care delivery system, I believe, is among the finest in the nation. The SMS is enthusiastic about the future and will continue to strive to be innovative and pro-active to the rapid changes in health care.

The SMS, however, has identified the uninsured issue as a crucial one for the future of health care in our state. Ensuring access to health care is a concern both in Wisconsin and throughout the United States. More than half a million persons in Wisconsin, and approximately 37 million throughout the United States, are lacking adequate health care protection. Very disturbing is the fact that these individuals cannot afford or obtain the health care coverage they want or need, and are frequently unable to obtain access to the high quality health care available in this country.

As providers of health care, we must strive to improve the availability and accessibility of medical care. The SMS has served on many important private and public bodies addressing the issue of health care for the uninsured. We have been in the forefront of providing care and assuring access for the uninsured and under-insured over the years through such existing programs as We Care, WisconCare, ShareCare, and PartnerCare. These programs have been successful public sector-private sector cooperative efforts with state and local government agencies in Wisconsin. However, we must recognize that such programs remain short-term efforts, not fundamental responses to the growing problem of access to health care.

State, local and federal government have recently been proposing a variety of programs addressing the uninsured. Many of these programs will be used as testing grounds for possible solutions to this growing problem, such as the State Health Insurance Program in Wisconsin, frequently referred to as the SHIP project. The intent of this program is to test different options for health insurance coverage. Currently, I serve as chair on the advisory council to the SHIP project. The program consists of three pilots to determine the effectiveness of providing subsidies for health coverage to qualifying low-income persons. The first pilot has been implemented in Outagamie county and is targeted at small non-insuring firms with less than 20 employees. The second pilot is being implemented in Portage and Rock counties this month and is directed at employees of firms that currently offer a health insurance plan and have fewer than 100 employees. The third pilot is targeted for implementation in October, in either Milwaukee or Madison. The objective of the third pilot is to obtain experience in administering a Medical Assistance buy-in program for qualifying low income persons with disabilities.

Thomas L. Adams

The Council has been meeting monthly since November 1988, and has focused on such issues as pilot design and implementation, administrative rules and program evaluation. What is learned from the SHIP pilots will be a key factor in determining what direction future programs aimed at providing health coverage will take in Wisconsin.

While the SMS will continue its traditional commitment to providing access to health care, it is clear that longer range solutions must be developed. We must continue to encourage cooperative public sector-private sector efforts to ensure high quality and needed access to care. Clearly, we in the state of Wisconsin cannot afford to continue postponing the hard choices we must make to better serve the uninsured in our state.

Editorials

Solid family values make sense

WHAT WOULD YOU THINK of parents who build a bomb shelter for their family, but refuse to take a sick child to the doctor because "it costs too much?" What would you think of a father who lets the rest of his family go hungry so that he can afford steak for himself? I think most of you would agree that these scenarios present examples of inappropriate behavior. We would expect parents to use some common sense in addressing the needs of their children. We would expect parents to address real problems first, and theoretical problems later. We would expect them to pursue realistic solutions, not illogical ones (remember Laetrile?). And we would expect that a responsible parent would attempt to see to it that everyone in the family had enough, before assuring that any one family member was given everything he wanted.

Why is it so hard for us to apply the same values to our society that we apply to the family? We don't, and we aren't. But not because we can't. We spend billions of dollars, much of it in secret funds, to devise high-tech defense systems which critics say may not work, against a war which will likely never be fought. We devise weapons too expensive to allow soldiers to practice their use. Yet, we cannot find the money to guarantee all Americans access to adequate health care. We tolerate an insurance system that looks for excuses to deny coverage to those who need it most. We tolerate a system that guarantees virtually unlimited benefits to some and denies any benefits at all to others.

It makes no sense. We as a society need to approach the care of our people according to family values. We need to spend less money on theoretical problems and more money on actual problems. We need to guarantee that all of our people have enough health care before we guarantee that certain people have medical *carte blanche*. When you think about it, solid family values make sense, no matter how big your family is.

—Jeffrey H. Lamont, MD
Wausau

Special

The enigma of the stigma of ECT: 50 years of myth and misrepresentation

NOW THAT ELECTROCONVULSIVE therapy is in its 50th year, it is abundantly clear that the efficacy and safety of ECT for major depression and other affective disorders has been well documented.[1-12] It is equally clear that a stigma remains attached to ECT, and the educated observer must wonder why.

ECT is the sole survivor among insulin shock, camphor, pentylenetetrazol and lobotomy, and continues to be (too frequently and negatively) associated with these archaic treatments. That it continues to be viewed by psychiatry as one of, if not the most effective treatment for affective disorders is a testament to its efficacy and safety.

That this treatment has been, and continues to be, the most effective way to treat severe depression since 1938 appears to have been obscured. In part, this resulted from excessive and even indiscriminate use of ECT between its inception in 1938 and the widespread turn to psychotropic medications beginning in the 1950s. The major tranquilizers and antidepressants have since been found to have their own potential for severe side effects (tardive dyskinesia, cardiac arrhythmias, etc). As a direct result, a resurgent interest in ECT emerged among medical and mental health professionals.

Fear and misapprehensions, however, have persisted. To dispel these notions it is necessary to inform primary care physicians of the large percentage of individuals, especially in the elderly, who cannot tolerate side effects of psychotropic medications, and for whom ECT is the preferential mode of treatment.[13-14] In addition, there have been many new developments in ECT—such as unilateral treatments and the pulsed square wave delivery apparati which permit effect treatments with considerably less memory loss or confusion —if any at all.

An analysis of state regulations regarding the use of ECT reveals that varying degrees of prohibitions of the procedure have been quite extensive. The authors of this analysis report

that "current regulation . . . interferes with medical decisions . . . excessive regulation is common . . . doctors may fail to pursue or even recommend ECT when it would be of significant value to the patient because the legal procedures are too burdensome."[15]

Malpractice insurance carriers tended to perpetuate the myth that the psychiatrist who provides ECT runs a greater risk of a malpractice suit, even though statistics do not bear this out. This led to higher premiums for those psychiatrists who gave ECT treatments resulting in a lesser number of psychiatrists willing to provide ECT.[16]

When then, the stigma of ECT? There are two areas to consider: the nature of the procedure and the nature of the illnesses being treated.

The procedure. These always has been a distinct fear of an electrical current passing through one's brain (the "shock") and what it might do to alter the personality or *mind* of that individual. This loss of the distinction between brain and mind is critical. Psychiatrists are frequently viewed as providing treatments such as medications or ECT that alter one's mind—ie, personality, rather than changing the neurochemical deficiency of a chemical pathology of the brain.

The name of the procedure itself—"convulsive" or "seizure" therapy evokes images of a person experiencing an uncontrolled grand mal epileptiform seizure, (ie, falling to the ground, writhing, biting the tongue, etc). Most people are understandably unaware that the seizure of ECT occurs in the brain only, and that the anesthesia and the muscle relaxant serve to keep the patient unconscious and pain free throughout the brief procedure.

Since the term "electroconvulsive therapy" or "shock therapy" is therefore a misnomer (no true "convulsion" of the body or "shock" occurs) a different term might be less misleading. One such term that has been offered in the past was "cerebroversion." This too, however, has problems, with associated images of "state authorized mind control." A better term altogether might just be "brain stimulation therapy (BST)."

The illnesses. Another explanation for such a response to ECT may lie in the generalized stigma afforded psychiatry, psychiatric illnesses, and psychiatric treatments in general as Paul Fink, MD, has so eloquently articulated in his article on psychiatric education.[17] As he points out there appears to be a generalized prejudice regarding psychiatric treatments and psychiatry in general, and psychiatrists are viewed as the practitioners who "incarcerate, shock, abuse,

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control, and in general, through cruel administrative and therapeutic means, add to the despair of patients."

An in depth analysis of *Contemporary Attitudes Toward Mental Illness* (Crocetti, Spiro, & Siassi) came to the conclusion that stigmatization of the mentally ill has resulted in the viewing of such effected individuals as being different or *other* than oneself and therefore rejected. They advocated educational efforts about the universality of mental illness, saying that "once universal vulnerability to an impairing condition, be it physical or mental, is perceived by members of a society, its conception as deviance becomes untenable within that society."[18] This book is a plea for the "medicalization" of psychiatry.

Medical science has brought us a time in which we perceive a series of mental disorders which appear to have a biological basis, often appearing to have a genetic predisposition, and a strong potential for medical intervention and treatment. As we know it, there are two ends of the spectrum: brain disease, which may include such illnesses as endogenous depression, schizophrenia, and manic depressive disorder, etc, and alternatively coping problems, and situational sadness in which an individual exhibits difficulty with the stresses of life. The tendency is to blur and combine these two under the general heading of mental illness. Why would someone who is merely experiencing transient stress allow him or herself to have an electrical current pass between their temples?

Patients who are experiencing endogenous depression often feel that they have not conducted their lives in an effective manner and that they should have been able to prevent this condition. They also are fearful that psychiatrists will provide mind-altering drugs or shock treatments which will change the essence of who they are, cause them to be addicted, or forever be changed.

However, when psychiatrists explain that the patient may be suffering from a biological depression, which is very similar by analogy to diabetes, the patient and their families often are more receptive. When it is explained that there is no more reason too feel guilty about having biological depression than one would feel guilty about experiencing diabetes, the analogy appears to make sense. The explanation that these medications essentially are no different than providing insulin for the diabetic is extremely helpful. At this point insight and understanding frequently can be facilitated. The individual often relaxes, may feel free of the burden of guilt, and may accept a medical definition of a medical illness that has a medical treatment.

We need to convey, better than we ever have before, that there are a series of biological disease that occur in the brain and for which we have biological treatments, including ECT. We need to explain that when a person is biologically depressed, the very same target organ (brain) that is ill may be dysfunctional such that the person will not perceive (mind) that he or she needs treatment. A person with diabetes in which the mind is unaffected may more easily bring himself in for treatment than the biologically depressed in which the organ that is ill is the one which makes the decision of whether or not to go for help.

Little wonder then that individuals have been outraged at the prospect of our treatments when they have confused true mental illness with the distress of the worried well. Following this paradigm, psychiatrists are easily viewed as spending much of their time involuntarily hospitalizing individuals, prescribing so-called mind-altering drugs, and providing ECT for behavior inconsistent with the psychiatrist's wishes and expectations. Remove the biological basis of emotional illness and it is easy to understand those who have been horrified of psychiatrists and their practices.

It is important for all physicians, especially primary care physicians who are called upon for recommendations for specialty care, to be aware of the signs and symptoms of major depression and the treatment alternatives. In addition, the indications for ECT include patients who are not responsive to medication treatment, have too many side effects, or require more rapid intervention due to debilitation of the illness or potential for suicide. Proper assessment of major depression and rapid intervention with correct medication and ECT can reduce patient suffering, not to mention medical costs and loss of time from family and work.

The educational process for the patient begins with the primary care physician. Mental health profession-

Continued on page 8

Opinion policy

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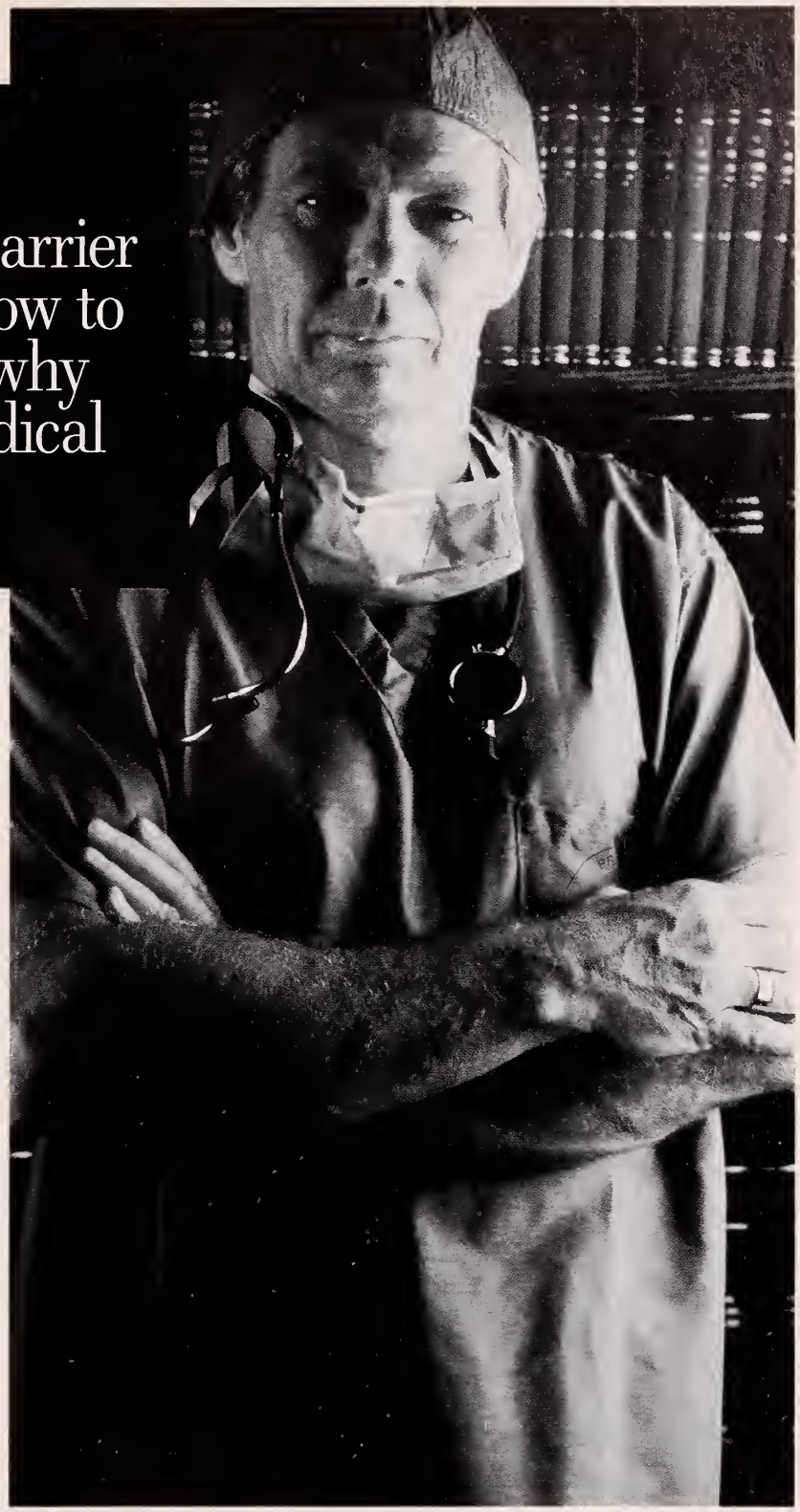

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Continued from page 6
als find that it is easier to provide treatment when patients understand that ECT is an option their primary care physician has considered and believes to be appropriate, safe, and effective.[19-31]

The cure for stigma is education. The resources are available. The responsibility is ours.

—Donald P. Hay, MD, Milwaukee executive director, International Association for Convulsive Therapy (ACT)

—Linda Hay, RN, PhD, assistant clinical professor of psychiatry, University of Wisconsin Medical School, Milwaukee Clinical Campus

—Herzl Spiro, MD, PhD, professor of psychiatry, University of Wisconsin Medical School, Milwaukee Clinical Campus

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Continued on page 10

Letter

Breast cancer detection error

To the editor: As a practicing radiologist actively involved in mammographic interpretation, I was particularly interested in the report "Breast cancer detection awareness project in Wisconsin: 1987–1988" in the September 1989 issue of the *Wisconsin Medical Journal*.

The data from the studies are tabulated in Table 1 of this article, but the biopsy results section there is an error which should be mentioned. The values presented as "Malignant/benign biopsy rate" actually represent the malignant/total biopsy rate, a considerably different figure.

Furthermore, the figures for 1988 are of little value due to incomplete reporting. A total of 260 biopsies were reportedly performed, but the authors present the results of only 225 of these, 173 non-malignant and 52 carcinoma. It is certainly unjustified to assume that the remaining 35 biopsies were non-malignant, as has been done in calculating the incorrectly labeled "Malignant/benign biopsy rate" and the ratio "Cancers/women screened." Referring only to the 225 biopsies with known results, the ratio of malignant/total biopsies is 1/4.3, not 1/5.0 as reported. If the unknown 35 biopsies maintained the same ratio, there would be another eight carcinomas in 1988, and this would reduce the cancers/women screened to 1/147 from the 1/170 figure reported.

—Paul A. Larson, MD
Neenah

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Continued from page 8

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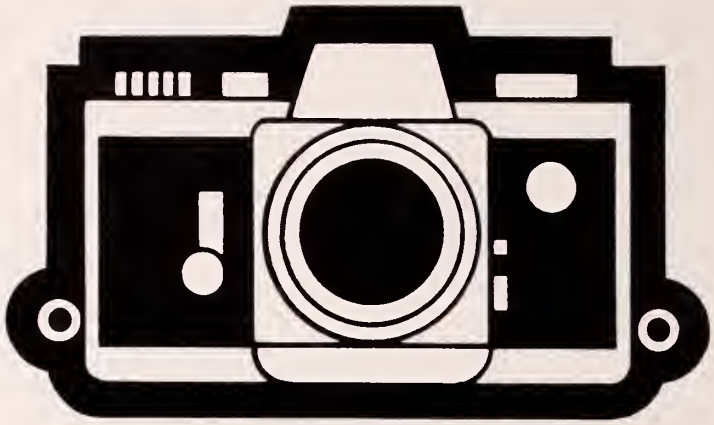

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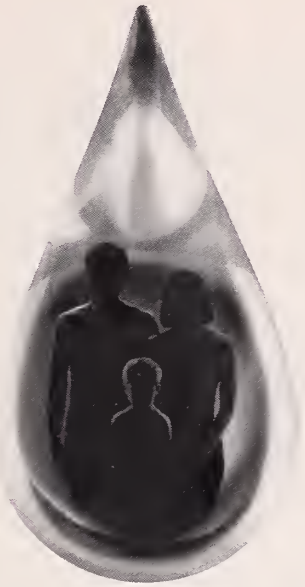

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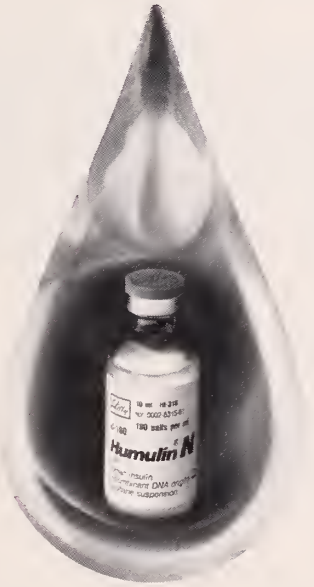

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Acute renal failure in octogenarians

Philip J. Dahlberg, MD, and Ana Schaper, RN, La Crosse

We analyzed hospital survival rates, severity of illness, and long-term outcomes in patients from three different age groups who were treated with hemodialysis for acute renal failure (ARF). Patients over age 80 had fewer bad prognostic factors. This selection bias was reflected in their hospital survival rates of 53%, compared to 57% of patients under age 70. No selection bias for patients ages 70 to 79 years was identified, and their hospital survival rate was 27%. The long-term outcome of hospital survivors was poor, particularly in the very elderly. Physicians should consider all of these factors when deciding whether to offer hemodialysis to elderly patients suffering from ARF. *Wis Med J* 1989;88(12);19–23.

THE PROGNOSIS for patients with acute renal failure (ARF) has not improved measurably despite advances in medical care and dialysis technology,[1] probably because patients offered dialysis are older and sicker.[2] The decision whether to use expensive resources for the treatment of ARF should be based on ethical and scientific principles. The ethical considerations include the patient's desires and potential quality of life. The major scientific considerations are an assessment of good and bad prognostic factors, the impact of concurrent disease, and an estimate of meaningful long-term survival should the patient recover. Several formulas and indices have been developed to assist in predicting the outcome of ARF.[3-6]

Most studies have found that survival rates decrease with age. In some of these, the patient's age seemed to be an independent risk factor,[3,7-9] while in other studies it was not.[4-6,10,11] A study by Lien and Chan found no survivors among patients over age 80.[3] McMurray et al reported a 33% survival rate in 80-year olds.[11] Other studies found that older patients who do recover from ARF tend to have incomplete recoveries of renal function.[9,12]

We retrospectively analyzed our experience with hemodialysis for ARF in patients over age 80. Two methods for predicting outcome were used to compare these patients with younger cohorts.[4,5] We also analyzed the long-term outcome of our hospital survivors.

Patients and methods

Patients were entered in the study if they had renal failure of recent onset or exacerbation of stable, pre-existing renal disease requiring hemodialysis for severe azotemia (blood urea nitrogen, greater than 100 mg/dL), hyperkalemia (serum potassium, greater than 5.5 mm/L), fluid overload or encephalopathy. Patients with severe pre-existing chronic renal failure starting chronic dialysis were excluded. Thirty patients over the age of 80 met our criteria and were entered into the study as Group I. Thirty patients ages 70 to 79 years and 30 patients less than 70 who met the same criteria were randomly selected from our dialysis records and became Group II and Group III, respectively.

Survival was defined as a discharge from the hospital in stable condition. Terminal patients discharged to spend their last days at or near their homes were not included in the survival group. We attempted to compare selection bias and severity of illness using the discriminant score described by Rasmussen et al[4] and the clinical index reported by Lohr et al.[5]

Post-hospitalization outcomes were determined from our clinical records and communications with local physicians.

Results

Table 1 compares the three groups of patients. Men predominate except in Group III. As expected, Group I had the highest prevalence of pre-existing renal disease and Group III, the lowest prevalence of pre-existing

From the Section of Nephrology, Gundersen Clinic, Ltd, La Crosse. Reprint requests to: Philip J. Dahlberg, MD, Gundersen Clinic, Ltd, 1836 South Ave, La Crosse, WI 54601; telephone: 608-782-7300. Copyright 1989 by the State Medical Society of Wisconsin.

heart disease. Group I patients were taking the most drugs on admission to the hospital, but even in this group, 12 of the 30 patients were on no medications. None of these differences reached statistical significance.

Group I had fewer patients with post-operative ARF and more with obstructive ARF. All patients with obstructive ARF required emergency hemodialysis before definitive diagnostic and surgical procedures could be performed. The causes of obstruction were:

- Group I—prostate cancer, two patients; bladder cancer, one; metastatic adenocarcinoma, one; nephrolithiasis, one; benign prostatic hypertrophy, one; unknown, one;
- Group II—prostate cancer, one; blood clot, one; retroperitoneal fibrosis, one;
- Group III—nephrolithiasis, one.

Table 2 provides an analysis of our hospital survivors. A life table analysis of survivors following hospital discharge showed that all three groups had significantly poorer survival rates than those in the age-matched population controls (Wilcoxon ranking, $P < 0.05$). The Figure illustrates the outcomes of each hospital survivor, the cause of death, and his or her major residual disabilities or diseases.

We attempted to determine selection bias between our patients with vasomotor nephropathy using the discriminant predictor score described by Rasmussen et al.[4] In their discriminant analysis, ten clinical variables had predictive value, and a functional coefficient was determined for each. A patient's discriminant predictor score is determined by adding the coefficients of each predictor variable present to a constant. They reported predictive values of 100% for scores of greater than 0.21 in patients studied retrospectively and greater than 0.46 in patients studied prospectively. In our patients these scores yielded predictive values of only 28% and 31%. Because of the poor predictive values, we abandoned this technique from further data analysis.

An analysis of 126 patients with all types of ARF (except post-transplant ARF) by Lohr et al revealed five poor prognostic factors (systolic blood pressure of less than 110 mm Hg, assisted ventilation, congestive heart failure, proven or suspected sepsis, and gastrointestinal dysfunction). The number of poor prognostic factors had a positive relationship to mortality and provided a simple clinical index. Table 3 demonstrates the progressive fall in survival rates with the increasing number of factors published by Lohr et al[5] compared to our patients. In our patients, there was also a significant relationship, except in the youngest patients (Group III) where 70% with four adverse factors survived.

Table 3 also demonstrates the selection bias present in offering hemodialysis to Group I patients (27 patients, less than three factors) compared to Group II (19 patients, less than three factors) and Group III (15 patients, less than three factors). The mean number of factors in Group I (1.7) was significantly different from Group II (2.8) and Group III (3.0) (one way ANOVA, Tukey's HSD test

Table 1—Demographic data and etiology of ARF

	Group							
	I		*II*		*III*		*Total*	
Age (years)								
range	80–88		70–79		21–68		21–88	
mean	82.7		74.2		57.8		71.6	
	n	(%)	n	(%)	n	(%)	n	(%)
Sex								
male	24	(80)	25	(83)	14	(47)	63	(70)
female	6	(20)	5	(17)	16	(53)	27	(30)
Pre-existing disease								
Neurologic	4	(13)	4	(13)	2	(7)	10	(11)
Cardiac	16	(53)	12	(40)	8	(27)	36	(40)
Pulmonary	4	(13)	7	(23)	7	(23)	18	(20)
Renal	6	(20)	3	(10)	2	(7)	11	(12)
No. admission medications								
0	12	(40)	13	(43)	18	(60)	33	(37)
1–2	7	(23)	9	(30)	6	(20)	22	(24)
3–5	6	(20)	7	(23)	4	(13)	8	(9)
6–12	5	(17)	1	(3)	2	(7)	8	(9)
Etiology of ARF								
Medical	22	(41)	16	(30)	16	(30)	54	(60)
VMN*	8	(27)	5	(17)	7	(23)	20	(22)
other	7	(23)	8	(27)	8	(27)	23	(26)
Surgical	8	(27)	14	(47)	14	(47)	36	(40)
VMN	8	(27)	13	(43)	10	(33)	31	(34)
other	0	(0)	1	(3)	4	(13)	5	(6)
Obstructive	7	(23)	3	(10)	1	(3)	11	(12)
Hospital days (mean)	19.7		25.7		28.6		24.7	
No. dialyses (mean)	5.7†		7.2		10.6		7.8	

*vasomotor nephropathy

†$P < 0.05$

P < 0.05). This selection bias is also reflected in Tables 1 and 2. Group I had the fewest patients with postoperative ARF and the most with obstructive ARF, which are favorable prognostic findings.[9] They also had fewer hospital days and dialyses.

Table 2—Analysis of hospital survivors

	Group I		Group II		Group III	
	n	(%)	n	(%)	n	(%)
Survived	16/30	(53)	8/30	(27)	17/30	(57)
vasomotor	6/16	(38)	3/18	(17)	7/17	(42)
obstructive	6/7	(86)	2/3	(67)	1/1	(100)
other ARF	4/7	(57)	2/9	(22)	8/12	(67)
Hospital days (mean)	20		36		34	
Hospital dialyses (mean)	6.8		8.3		12.4	
Discharge destination						
Home	11		7		15	
Nursing home or hospital	5		1		2	
Chronic dialysis	4		0		2	
Malignant disease	4		1		0	

Table 3—Comparison of adverse prognostic factors and survival of our patients and those described by Lohr et al

	Survival (%)				
Group	*Lohr et al*[9]	*I*	*II*	*III*	*Total* (I, II, III)*
No. factors					
0	8/13 (62)	6/7 (86)	1/1 (100)	2/2 (100)	9/10 (90)
1	8/18 (44)	6/8 (75)	3/4 (75)	2/2 (100)	11/14 (79)
2	10/33 (30)	2/4 (50)	0/6 (0)	3/6 (50)	7/16 (44)
3	5/26 (19)	2/8 (25)	2/8 (25)	1/5 (20)	5/21 (24)
4	0/20 (0)	0/3 (0)	2/10 (20)	9/13 (70)*	11/26 (42)
5	1/16 (6)	0 (–)	0/1 (0)	0/2 (0)	0/3 (0)
	32/126 (25)	16/30 (53)	8/30 (27)	17/30 (57)	43/90 (48)

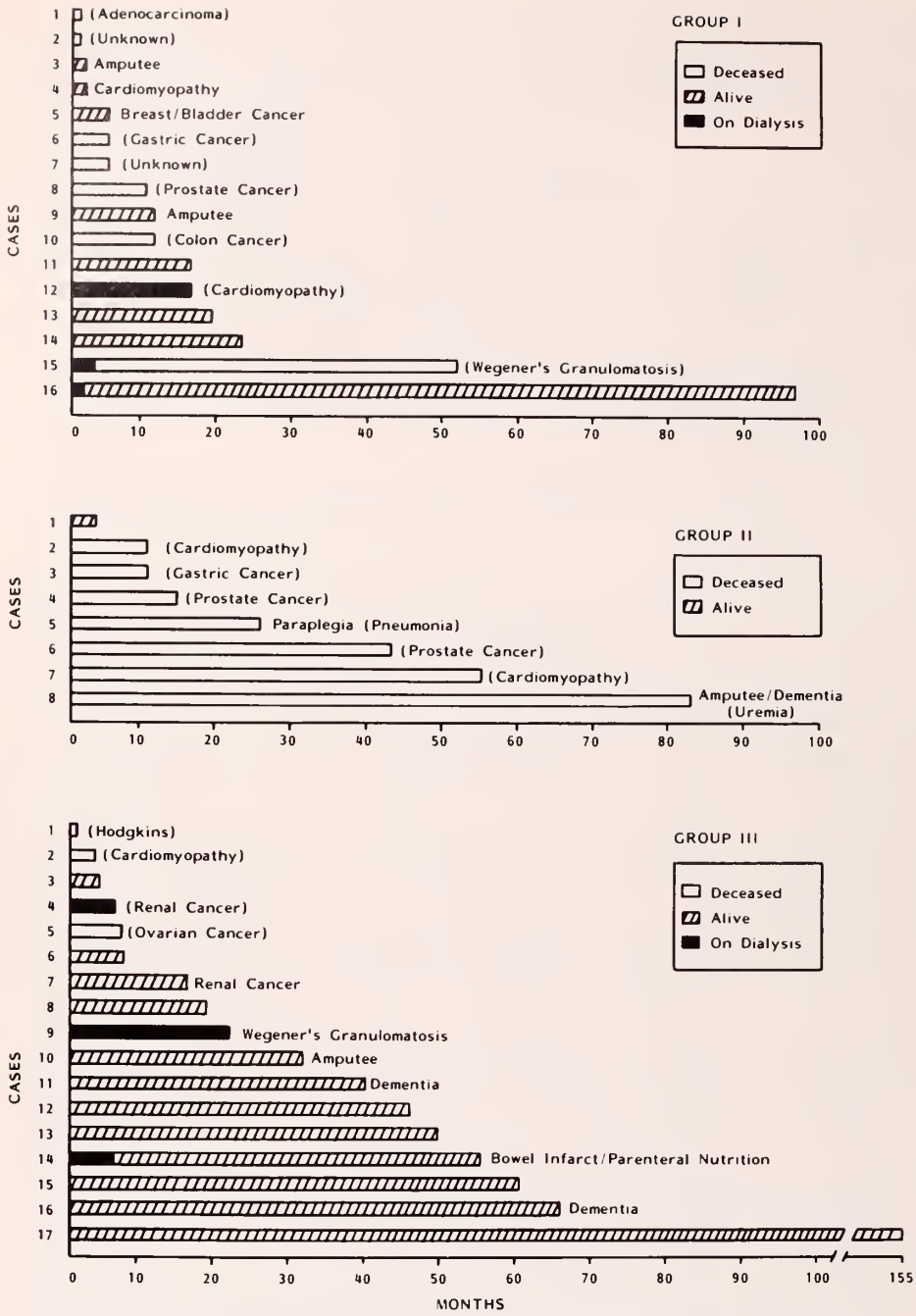
*χ^2 test $P < 0.05$

Discussion

This study was designed to determine hospital survival rates and the long-term outcome of patients over age 80 who received hemodialysis for ARF. We also wished to determine if older patients were selected differently for dialysis than younger ones. We found that hospital survival rates were the same for patients over age 80 (53%) as for patients under age 70 (57%). We also found a considerable selection bias in offering dialysis to patients over age 80. Only 10% of these patients had four or five bad prognostic indicators compared to 37% and 50% of the patients in the two younger age categories. These differences reflect the clinical judgments of the referring physicians and nephrologists in our institution. If they had been less selective it is likely that survival rates would have been lower. We did not identify selection bias in the treatment of patients 70 to 79 years old, which may account for the poorer prognosis identified in that group.

The use of published prognostic indices and formulas may be useful for comparing patient populations, but they must be used with great caution if applied clinically. Each may have different entry criteria and, in addition, may reflect differences in patient populations between institutions, the therapeutic aggressiveness of physicians, or both. These studies also cover different periods of time. The types of patients seen in the 1990s will certainly be different from those studied in the 1970s.[2] With the exception of the study by Lohr et al, these studies were limited to patients with "acute tubular necrosis," often an imprecise clinical diagnosis that may encompass a variety of renal injuries such as those from nephrotoxic antibiotics, contrast media, ischemia, sepsis, and pigmenturia. Each has different prognostic implications that must be considered by the clinician, and usually, multiple factors contribute to the renal failure.[10] These difficulties are demonstrated by the poor predictive value of one reported discriminant score when applied to our patients.[4] Although we did use the clinical index described by Lohr et al, there were significant differences between the outcomes of their patients and ours.[5]

Hospital survival has traditionally been used as an end point for success in the treatment of ARF. Long-term survival, perhaps, has been assumed because of studies showing nearly complete recovery of renal function in acute tubular necrosis.[12,13] Gornick and Kjellstrand, in a study of 47 patients with ARF that complicated aneurysm surgery,[14] were the only previous investigators to look at outcomes after hospital discharge. Ten of their patients survived hospitalization, three on chronic hemodialysis,



Outcomes of hospital survivors. Major residual disabilities or diseases are indicated after each bar; causes of death are in parentheses.

and six of the ten died within 3 years. Similarly, Schroeder et al reported that 34% of "high cost," non-renal patients surviving hospitalization died within 2 years.[15] Our study also found poor long-term survival in elderly patients surviving ARF.

Published prognostic indices must, therefore, be used cautiously, and physicians should continue to rely primarily on their clinical judgment. Decisions to begin hemodialysis would be ethically simpler if we depended on hospital survival statistics alone. The long-term quality of life must also be considered, however. Although 16 of our 30 octogenarians survived, four were discharged with malignancies, four on chronic dialysis (one recovered), six were dead within 1 year, and only four were alive 3 years after discharge.

Furthermore, the 70- to 79-year-old patients did not fare much better, and four of the 17 hospital survivors in Group III (less than age 70) died within 1 year after discharge. Although these outcomes seem discouraging, they may be acceptable to patients and families. Surprising, one study found that the majority of patients over age 55 and their families were willing to undergo intensive care for even one month of survival, regardless of age, severity of illness, functional status or quality of life.[16]

In conclusion, it appears to be no less ethical to offer hemodialysis to patients over age 80 than to younger patients if they are selected carefully. Hospital survival rates are similar, but long-term outcome is predictably worse in octogenarians. Published clinical indices and prognostic formulas are no substitute for clinical judgment. In this age of outcome "assessment and accountability" the long-term survival of ARF patients must be considered in the scientific, ethical and economic judgments we make when caring for the elderly.[17,18]

Acknowledgment

This work was supported by the Gundersen Medical Foundation.

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Estimating nutritional intake in nursing home residents

Elizabeth Langer, MS, RNC,
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SEMPOS ET AL[1] surveyed nutritional intake in 14 Wisconsin nursing homes by analyzing menus and weighing the 24-hour food intake of 162 randomly selected residents (108 women, 54 men). The study found that planned menus were below 100% of the federal recommended daily allowance (RDA) in magnesium, zinc, vitamin B-6, total folate, and pantothenic acid. The actual intake of these nutrients was less than 70% of the RDA in 66% to 81% of male residents.

Because this earlier study raised the possibility of inadequate intake of certain nutrients, we undertook a clinical project using a newly purchased N2 Nutritionist III software database (N-Squared Computing, Silverton, Ore) containing the nutrient content of common foodstuffs. Our project addressed the following question: What is the nutritional intake of dependent residents in a long-term care facility based on estimates of food intake by nursing assistants?

The authors are all with the Wisconsin Veterans Home in King. Ms Langer is a nurse clinician in geriatric evaluation research and education. Dr Drinka is medical director and also an assistant clinical professor of medicine at the University of Wisconsin Medical School. Dr Voeks is a research analyst, also in geriatric evaluation research and education. Reprint requests to: Elizabeth Langer, MS, RNC, Wisconsin Veterans Home, King, WI 54946. Copyright 1989 by the State Medical Society of Wisconsin.

Patients and methods

The Wisconsin Veterans Home is a long-term care facility located in central Wisconsin. The average daily census is 680 (500 men and 180 women) with a mean resident age of 77 years. Nursing assistants aid and supervise residents during meals.

The facility employs three dietitians who coordinate the therapeutic diet program. Prior to the purchase of the computerized data base, the meals were planned using the basic four food groups of milk, meat, fruit-vegetables, and grains. The general and other non-calorie-restricted diets were expected to provide the RDA of vitamins and minerals within 2,000 to 2,200 calories. The limited-calorie diets were expected to provide the RDAs within the calorie restrictions. The pureed diets were also planned with the basic four groups with liquid supplements provided if general intake was low.

Subjects. Ten men averaging 86.8 years were selected to participate in

this project. These residents (nine requiring skilled nursing care and one, intermediate care) were selected because they ate their meals on the same nursing unit. Six residents fed themselves, two needed assistance, and two were completely dependent. None of the subjects was able to walk to the ground floor where snack machines are located. None of the residents was acutely ill prior to the study, and all had a stable nutritional intake. One subject did not complete the study because he was admitted to the hospital.

The diets ordered for these nine residents included restricted calorie (two), diabetic (two), bland (two), and restricted sodium (nine). The diets ranged in consistency from regular to pureed.

Data collection. Total intake was estimated over three consecutive days. The dietary department serves portions of specific weight and volume measured with scales, graduated spoons, and scoops. The dietary department prepared a list of the specific food items provided to each participant at each meal or scheduled snack. The nursing staff were advised not to tell the residents that their intake was being monitored and to provide their usual encouragement to the residents to eat. The nursing staff was instructed to note all intake on these lists using increments of 0, 25%, 50%, 75%, and 100%. Scheduled between-meal snacks were quantified as well as any other observed intake. In addition, the nursing staff was requested not to discard uneaten food from the trays. After the resident had eaten, the trays were returned to the dietary department, where the dietitians also estimated the food intake using the same increments.

After the three days of data collection, dietitians entered the amounts of food consumed by the subjects into the N2 Nutritionist III computer program. This software calculates nutrient intake by multiplying the percent of food eaten times the portion size and then determines the vitamin, mineral, and calorie content.

Results

The subjects on non-calorie-restricted diets averaged 2,044 calories per day, range, 1,258 to 3,049. The two subjects on calorie-restricted diets consumed the prescribed number of calories. All residents had calculated intakes of more than 70% of the RDA of protein, thiamine, riboflavin, pantothenic acid, iron, vitamins A, B-12, C, D and calcium.

A number of the subjects ingested less than 70% of the RDA for folacin (8/9), vitamin B-6 (6/9), magnesium (5/9), zinc (5/9), niacin (4/9), and potassium (3/9). The Table records the number of subjects ingesting less than 70% and 55% of the RDA for specific nutrients and compares our results with those of Sempos et al.[1]

The inter-observer coefficient of variation of food intake between nursing assistants and dietitians was 1%.

Number (%) of male residents with deficient intake by present study (WVH) and Sempos et al.

	Consumed < 70% RDA		*Consumed < 55% RDA*	
Nutrient	**WVH (n = 9)**	**Sempos (n = 54)**	**WVH (n = 9)**	**Sempos (n = 54)**
Folacin	8 (88%)	39 (72%)	4 (44%)	23 (42%)
Vitamin B-6	6 (66%)	44 (81%)	2 (22%)	21 (39%)
Magnesium	5 (55%)	41 (76%)	2 (22%)	21 (39%)
Zinc	5 (55%)	37 (69%)	1 (11%)	22 (41%)
Niacin	4 (44%)	26 (48%)	0 (0%)	— (—)

Discussion

The study by Sempos et al found that the nutrients provided in the planned menus as well as the actual measured intake of magnesium, zinc, vitamin B-6, total folate, and pantothenic acid were inadequate in the surveyed Wisconsin nursing homes. Our estimates of intake are surprisingly similar. Except for pantothenic acid, all of our subjects also consumed inadequate amounts of one or more of the nutrients Sempos et al found lacking. (Table).

The subjects of this project were dependent residents who could not walk out of their unit. These residents were at risk for nutritional deficiencies as a result of their dependent status and their diseases. Other contributing factors included menu planning based on the basic four food groups and inadequate nutrient density. According to King et al[2] meal planning using the basic four method may result in diets inadequate in some essential nutrients including vitamins E and B-6, magnesium, zinc and iron if proper varieties within each group are not selected. The subjects in our study demonstrated an inadequate intake of some of these same nutrients (magnesium, zinc, and B-6).

In this project, the non-calorie-restricted diets were expected to provide 100% of the RDA only if 2,000 to 2,200 calories were ingested daily. Some elderly residents on non-calorie restricted diets (2/7) did not consume this many calories. Therefore, a more nutritionally dense diet providing the RDAs in fewer calories is optimal for this population.

Another reason for inadequate nutritional intake is that certain essen-

tial nutrients may be available only in foodstuffs that are not palatable to some persons. Foods such as legumes and whole grains containing vitamin B-6, magnesium, zinc, and folacin are often disliked by this population. Therefore, strong consideration should be given to supplementing diets with vitamins and minerals.

This project suggests that an estimate of intake by nursing assistants and a nutrient analysis with a computerized database can be used to evaluate the intake of such residents in clinical practice. Since our facility obtained the N2 Nutritionist III software, dietitians are better informed regarding which RDAs are being met and which ones are difficult to provide. Computerized nutritional analysis can improve menu writing, but getting the residents to eat the meals continues to be a problem. They may still not consume the desired RDAs because of personal preferences, anorexia, or early satiety. Much more work is needed to improve the nutritional status of dependent nursing home residents.

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Editorial comment: Some members of the *WMJ* Editorial Board were concerned that while the approach was appropriate, it depended upon its being properly done—ie, the training—and it depended upon the physicians' acceptance of the data and their ability to act upon it. Further, it depended upon making the horse drink after it's led to water.

Serum free levels and evaluation anticonvulsant drug interactions

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In clinical practice, serum level monitoring of anticonvulsant drugs is usually adequate. When there is an alteration in the binding of the anticonvulsant drug to the plasma proteins, however, the relationship between the serum concentration and therapeutic efficacy or toxicity becomes difficult to interpret. This can occur with combinations such as nonsteroidal anti-inflammatory drugs (NSAIDs), phenytoin (Dilantin), carbamazepine (Tegretol), and valproic acid (Depakene) or when the albumin level is low. A failure to rely on serum free levels of the anticonvulsant under these circumstances can easily result in poor clinical decisions. The technique of serum free level measurement and illustrative examples of specific cases are provided to document the usefulness of this invaluable laboratory test. *Wis Med J* 1989;88(12);25–27.

ANTICONVULSANT DRUGS are chosen for their relative specificity for certain seizure types and their tolerance by the patient. Monotherapy is preferred whenever possible, but when additional drugs are required to establish seizure control, each drug is added and increased in dosage until high therapeutic levels are achieved. Anticonvulsant drugs have relatively narrow therapeutic margins, and adverse effects begin at the upper limits of the therapeutic range leading to significant morbidity (see Table).

The binding of anticonvulsants to plasma protein reduces the concentration of free drug in plasma and enhances absorption by maintaining a high concentration gradient of free drug between the gastrointestinal tract and the plasma. Since only the portion of unbound drug can diffuse out of the vascular compartment and bind to target tissue receptors (such as those in the brain, or in other organs, leading to side effects), protein binding serves to reduce diffusion and acts as a reservoir for the anticonvulsant.

In circulation, the protein-bound drug is always in equilibrium with the unbound drug. With multiple drugs that compete for protein binding sites, the total drug amount in the plasma can exceed the capacity of the protein to bind the usual percent of each drug separately. Such binding competition leads to excessive amounts of unbound drug not apparent from measurements of routine blood level of the drug in question. This can result in toxic signs and symptoms despite therapeutic drug levels when the drug

Therapeutic guidelines for administering anticonvulsants

Name (Trade name)	Adult dose	Pediatric dose	Indications	Serum level
Carbamazepine (Tegretol)	750–1200 mg	10–20 mg/kg	Partial or grand mal seizures	4–10 μg/mL
Ethosuximide (Zarontin)	750–2000 mg	15–40 mg/kg	Absence	40–100 μg/mL
Phenobarbital (Luminal)	100–150 mg	4–8 mg/kg	Partial or grand mal seizures	10–15 μg/mL
Phenytoin (Dilantin)	300–400 mg	5–7 mg/kg	Partial or grand mal seizures	10–20 μg/mL
Primidone (Mysoline)	500–2000 mg	10–30 mg/kg	Partial or grand mal seizures	5–10 μg/mL
Valproic Acid (Depakene)	1000–2000 mg	10–15 mg/kg	Mixed seizures, absence, partial or grand mal seizures	55–100 μg/mL

Values are averaged from the ranges available in literature
(Adopted from Gerson[7])

used is highly protein bound, such as with phenytoin (Dilantin), carbamazepine, (Tegretol), and valproic acid (Depakene).[1,2] Protein receptor binding competition can occur between these three drugs and with nonsteroidal anti-inflammatory drugs (NSAIDs) or with any other drugs that are highly protein bound (eg, sulfonamides).[3,4]

Recently, new laboratory methods have been adapted to separate serum from serum free vascular compartments (equilibrium dialysis, ultrafiltration, and ultracentrifugation). Such methods have made it possible to obtain the concentrations of total and unbound drug from the serum as separate entities.[2] The assay methods themselves may employ techniques of radioimmunoassay or high performance liquid chromatography with optical or electrochemical detection. In order to relate serum free level measurements to a therapeutic range, established total drug therapeutic ranges are used and compared with the serum free level multiplied by a factor that compensates for protein binding displacement. For instance, if 25% of carbamazepine is unbound, the serum free level (eg, 2.1 μg/mL) is multiplied by 4 (8.4 μg/mL) and compared with the total carbamazepine level therapeutic range (4.0 to 8.5 μg/ml). In this particular example, 2.1 μg/mL of unbound carbamazepine is equivalent to 8.4 μg/mL of total carbamazepine as if it were the sole drug under conditions of normal albumin concentration. Multiplication factors for phenytoin are 10 and for valproate, 10 (minimum) to 20 (maximum). The factor range for valproate represents the range of protein binding (ie, 90% to 95%).

The following examples help to clarify the use of serum free level determinations in clinical situations otherwise confusing on the basis of history and conventional whole blood levels.

Case 1

Blood levels of carbamazepine, phenytoin, valproate, primidone (Mysoline), and its metabolite, phenobarbital, were all found to be within the therapeutic range in a 32-year-old developmentally disabled epileptic patient. He had become lethargic and ataxic after loosing 50 pounds on an 1800-calorie diet over a 3-year period. The level of haloperidol (Haldol), used to control his bizarre behavior, was thought to be toxic, and its dose was reduced. Over the following two weeks the patient became preoccupied with shadow boxing and incessantly mumbled incoherently to himself. Drug levels, along with serum free levels, were retested. Phenytoin then appeared to be abnormal with a blood level of 18 μg/mL (therapeutic range, 10 to 20 μg/mL), but an unbound drug level of 2.6 μg/mL (equivalent to 10 x 2.6 μg/mL = 26 μg/mL) indicating toxicity. A reduction of phenytoin from 400 mg to 300 mg at bedtime, resumption of haloperidol, and maintenance of the other anticonvulsants returned the patient's behavior to baseline. This change also eliminated his lethargy and ataxia without exacerbating his seizures.

Because weight loss reduces both total body mass and basal metabolism, the clinical expectation of toxicity of at least one of the drugs was correct. A total assessment of both bound and unbound fractions of the anticonvulsants was necessary to clarify which agent was toxic. Reliance on the conventional blood levels resulted in the wrong therapeutic decision. In this patient toxicity probably involved drug displacement associated with a decrease in total protein binding sites as a result of fasting.

Case 2

A 38-year-old developmentally disabled patient continued to have mul-

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The following guidelines may be helpful in using serum free level measurements in the total management strategy:

1. Try to use a minimal number of anticonvulsants in every seizure patient.
2. Before adding a new drug be sure to increase the last medication to its maximal therapeutic effectiveness using both clinical criteria and laboratory confirmation of a high therapeutic concentration.
3. When multiple drugs are required in a patient's total treatment program, consider the drug-drug interaction both at the level of protein binding and drug biotransformation.
4. The patient should be cautioned against indiscriminant use of over-the-counter medications because of the potential for effects upon protein binding or biotransformation.
5. When a patient on multiple drug therapy shows signs of an adverse drug reaction or a loss of therapeutic efficacy that cannot be explained by conventional monitoring of total drug, further evaluation should include the serum free drug level before a change in the drug regimen is made.
6. In patients with conditions that modify the metabolism or the protein binding (eg, thyroid disease or renal disease, respectively) more frequent monitoring of both total drug and serum free levels are indicated.[5,6]

tiple absence seizures each week and one or two grand mal seizures monthly despite the use of ethosuximide (Zarontin), phenobarbital (Luminal), and phenytoin. An EEG revealed one episode of paroxysmal generalized 3 to 4 Hz slow waves. In order to attain improved seizure control, ethosuximide and phenobarbital were discontinued. Phenytoin was changed from 175 mg twice daily to 312.5 mg at bedtime to improve gastrointestinal absorption. Primidone, 250 mg four times daily, and valproate, 500 mg four times daily, were added. Seizure frequency improved to two to three absence seizures per month and month. The patient was now reported to be hypomanic and slightly ataxic, however. Blood levels of phenytoin (7.0 μg/ml), primidone (7.5 μg/mL), valproate (67.0 μg/mL) and phenobarbital metabolite (53.0 μg/mL, therapeutic range, 10 to 40 μg/mL) were measured along with unbound phenytoin (1.3 μg/mL). The reported adverse effects were ascribed to phenobarbital, which was toxic because of the patient's impaired hepatic catabolism due to valproate intake. The dose of valproate was reduced to 250 mg four times daily and phenytoin increased to 350 mg at bedtime. After this change, ataxia and hypomania resolved, and no further grand mal seizures were reported. Repeat levels of phenobarbital were 39 μg/mL and dilantin 10 μg/mL with serum free dilantin level at 1.8 μg/mL.

This last case illustrates some of the difficulties encountered with drug interaction in multiple drug regimens. Despite total phenytoin levels being subtherapeutic, valproate had increased the phenytoin free level by displacing phenytoin from protein binding sites. In addition, the valproate also reduced the hepatic catabolism of phenobarbital, one of the major metabolites of primidone. The decision to reduce the dose of valproate and to increase the dose of phenytoin was based directly on the measurement of the serum free level of phenytoin.

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Aortitis due to metastatic gas gangrene

Sheila L. Momont, MD, and Edwin L. Overholt, MD, La Crosse

Clostridium septicum bacteremia and its association with hematologic malignancy and colorectal cancer have been well recognized. Panwalker, in a recent review, discussed clostridial sepsis and other unusual infections associated with colorectal tumors, including streptococcal bovis and *Bacteroides*. He reports the coexistence of colorectal cancer and metastatic *Clostridium septicum* infections at multiple sites.[1] We describe a case in which a patient with an occult cecal carcinoma develops *Clostridium septicum* sepsis and thoracic aortitis secondary to metastatic gas gangrene. This dramatic and unusual complication has not previously been documented. The necessity of colonic evaluation with *Clostridium septicum* bacteremia is discussed. *Wis Med J* 1989;88(12);28–30.

AN 85-YEAR-OLD WOMAN came to the hospital with a 24-hour history of worsening dyspnea and orthopnea. Ten days prior to admission she had developed myalgias, nausea, vomiting, and fevers, but these symptoms resolved in four days. She became dyspneic over the ensuing week. She had palpitations but denied chest pain.

Hyperthyroidism, diagnosed 11 days before, had been treated with propylthiouracil. She had hypertensive vascular disease and had suffered a cerebrovascular accident in the past year. Medications included propylthiouracil, a hydrochlorothiazide-triamterene preparation, and propranolol.

On examination, the patient did not appear to be in acute distress. Further examination revealed the following: temperature, 37.9 °C; pulse rate, 133 beats per minute and irregular; respirations, 28/min, blood pressure, 120/60 mmHg. The right lobe of the thyroid was minimally enlarged without palpable nodules or tenderness. The lungs were clear. Her cardiac examination revealed an irregular rhythm with a Grade II/VI systolic ejection murmur at the left upper sternal border. Results from abdominal, extremity, neurologic and skin examinations were unremarkable. Findings from recent pelvic and rectal examinations were normal with no occult blood in the stool.

White blood cell count was 22.0 x 10^9/L, with 59% mature neutrophils and 29% band forms. The hemoglobin level was 118 g/L (11.8 g/dL) with normal red blood cell indices. A chemistry panel was unremarkable except for mild increases in her BUN and total bilirubin. The free T_4 index was 5.0 FTI units (normal, 2.2 to 4.6), and the serum T_4 level was 9.0 μg/dL (normal, 5.2 to 11.2). A specimen of

Fig 1.—Chest roentgenogram on admission. Note location of calcification in the thoracic aortic knob.

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arterial blood, obtained while the patient was breathing room air, showed the following: pH, 7.50; $pC0_2$ 3.8 kPa (28.6 mmHg), and $p0_2$ 8.6 kPa (64.6 mmHg). An ECG revealed atrial fibrillation with a rapid ventricular response, poor R wave progression, and nonspecific inferior T wave changes. A chest roentgenogram showed cardiomegaly and a calcified aortic knob (Fig 1).

Within 24 hours of admission, she became febrile, and cultures were obtained. The following morning her thyroid was tender. She developed a backache and was weaker by the third hospital day. Two of four blood cultures grew gram-positive rods that were subsequently identified as *Clostridium septicum*. Broad spectrum antibiotic therapy was changed to intravenous penicillin G, one million units every four hours. On the fourth hospital day her voice became hoarse. Soon afterwards, while walking across her room, she fell to the floor and was found to be hypotensive. A chest roentgenogram now showed a wide mediastinum with intramural gas in the thoracic aortic knob (Fig 2) Despite resuscitative efforts, she died.

On autopsy, the ascending aorta and the aortic arch were found to be the site of an unruptured dissecting atherosclerotic aneurysm. Clusters of gram-positive rods, compatible with *Clostridia,* were identified within the aneurysm blood clot. An infiltrating adenocarcinoma of the cecum with metastases to two pericecal lymph nodes was found. The tumor was moderately well differentiated and extended through the bowel wall and serosa into the adjacent pericecal fat. Two other incidental neoplasms were identified: an occult intraductal carcinoma of the left breast and a mucinous cystadenoma of the pancreas. A 45-g nodular goiter was also noted.

Fig 2.—Chest roentgenogram on date of expiration. Note wide mediastinum with intramural gas in the thoracic aortic knob. Calcification is now seen medial to the lateral wall margin.

Discussion

In this patient thoracic aortitis was manifested clinically by fever, leukocytosis, back pain, and, ultimately, shock. In addition, hoarseness developed due to the encroachment of the expanding aorta on the recurrent laryngeal nerve. Her physical findings, along with the marked widening of the mediastinum on chest film suggested aortic dilatation or dissection. In the presence of *Clostridium septicum* sepsis, the intramural gas seen in the aortic knob confirmed our suspicion that microbial arteritis had developed.

Microbial arteritis has been defined as an infection of a normal or atherosclerotic vessel by a bacteremia, often resulting in the rupture of the artery and pseudoaneurysm formation.[2] The two most common pathogens to infect atherosclerotic vessels are staphylococci and *Salmonella.* Many other gram-positive, gram-negative, and fungal organisms have been implicated.[3] Infection of a pre-existing aneurysm has similar bacteriology but an even higher mortality rate than microbial arteritis.[2] The absence of mediastinal widening and a normal aortic knob on the initial chest film are evidence against an aneurysm being present on admission. In either case, the atherosclerotic changes predisposed bacterial seeding of the vessel.

Clostridia are gram-positive, spore-forming, obligate anaerobes. They can proliferate in tissues when the

oxidation-reduction potential falls or when the pH is reduced, eg, with arterial injury, necrotic tissue, or anoxic tissue with lactic acid accumulation. Only 1% to 2.5% of all blood cultures recover *Clostridia.* Of these, the vast majority represent transient bacteremias and are caused by *C perfringens.*[4] Isolation of *C septicum* from the blood stream is rare.[1]

The association of *Clostridium septicum* sepsis with colon cancer and hematologic malignancy has recently been reviewed. In four different reports cited by Panwalker, malignancies were found in 75% of the bacteremic patients, with 28% being colorectal cancers.[1] Although *C septicum* is not commonly isolated from normal fecal samples, malignancies must establish favorable conditions for its growth in the colon. Intestinal ulceration with a necrotic or infiltrating tumor allows for clostridial dissemination in the bloodstream.[4,5] The bacteremic episode is required for metastatic infection to develop. To date, the association of colon cancer with metastatic *C septicum* infections to the liver, eye, shoulder, leg, thyroid gland, knee joint, and central nervous system have been reported.[1] This is the first documented case of cecal carcinoma, *Clostridium septicum* sepsis and thoracic aortitis with intramural gas formation.

Conclusions

This dramatic case of microbial arteritis with dissection of the ascending aorta and metastatic gas gangrene is a unique presentation of *Clostridium septicum* sepsis. To date, this complication has not been reported elsewhere. The postmortem identification of an occult cecal carcinoma reestablishes the association of *C septicum* bacteremia and colonic malignancy. Evaluation of the colon as the portal of entry is warranted in such cases.

Acknowledgments

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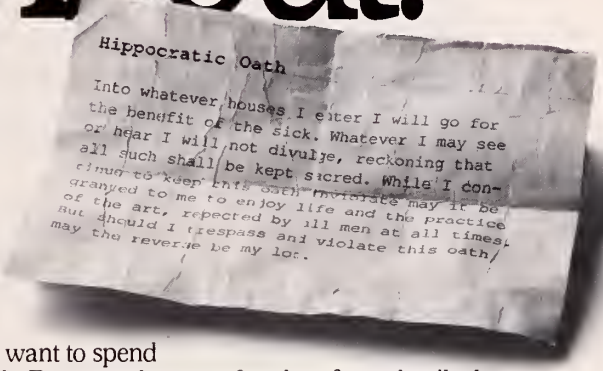

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Happy New Year.

Loss prevention

The expert witness

Thomas M. Kidder, MD
Milwaukee

A witness is defined as a person who can provide information to a court. There are two kinds of witnesses: a fact (ordinary) witness and an expert witness. A fact witness simply tells what the witness observed; the knowledge related must be firsthand. An expert witness has sufficient knowledge to explain and interpret a given set of facts to the court. A physician may serve as an expert in a personal injury case involving one of his or her patients (eg, auto accident, worker's compensation) or as an expert in a medical liability case for either the plaintiff or the defendant. In medical malpractice cases, the expert witness is expected to define the standards of care in a given case and explain how the defendant doctor did or did not conform to those standards.

Medical malpractice cases are not unique in requiring expert testimony.

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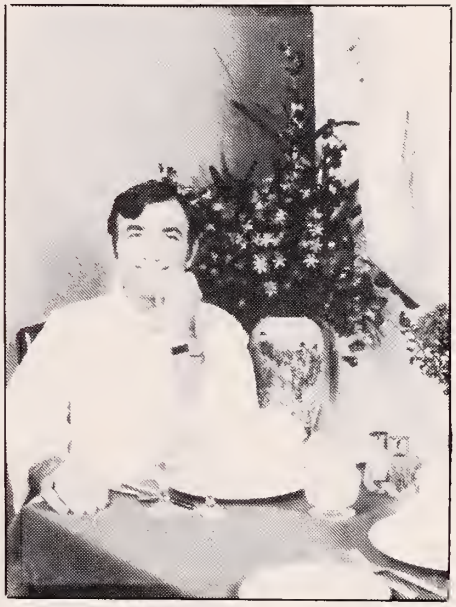

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All sorts of lawsuits, both civil and criminal, involve issues beyond the ken of the average juror, such as the need for a firearms or ballistics expert in a criminal case involving a gunshot wound.

The plaintiff in a medical liability lawsuit is usually required to produce, in support of the claim, the testimony of qualified medical experts. This is so because the technical aspects of the claim are usually far beyond the competence of non-medical jurors, whose duty it is to assess the defendant doctor's conduct. The one exception to the rule requiring expert testimony to establish the standard of care and how the defendant physician deviated from that standard is the doctrine of *res ipsa loquitur* (the thing speaks for itself). While this doctrine is probably being used less frequently now than formerly, there are still instances where the need for expert witness testimony in a medical malpractice case can be circumvented. Stated briefly, the doctrine of *res ipsa loquitur* applies only when a non-medical juror could be expected to conclude as a matter of common knowledge that a certain injury or outcome could not have occurred unless the defendant doctor were negligent.

The plaintiff's expert witness in a medical malpractice case must establish:

- that the plaintiff did, indeed, suffer an injury that produced the disability or adverse effects claimed;
- that the cause of the injury was the care, or lack thereof, rendered by the defendant doctor;
- the standard of care in a case such as the plaintiff's; and
- that the defendant's actions unjustifiably fell below the standard of care required.

There seem to be two main reasons, short of subpoena, that a doctor may choose to serve as an expert witness. Motivation may be solely for monetary purposes, the so-called hired gun, or for altruistic reasons, such as civic duty, defense of a colleague or support of a patient whom the expert conscientiously feels has been the victim of medical negligence.

A major impediment to assuring that expert medical testimony will be accurate and fair is that, in most jurisdictions, the qualifications for being an expert witness have not been defined by law; hence, trial courts have considerable leeway in determining what constitutes an expert witness and expert testimony. Thus we have the problem of the itinerant testifiers (hired guns), who make a living, not from clinical practice, but from parasitizing the legal process, traveling the land and selling their testimony to whomever will pay the price.

The courtroom is not a classroom or medical conference room where differences of opinion can be openly and candidly aired without the constraints imposed by the legal system. While ideally the expert should always be objective, the adversarial process invariably slants the expert's testimony—in the way questions are asked, or in the way that relevant details are included or suppressed—toward either the plaintiff or the defendant. A seasoned lawyer never asks a question during deposition or trial to which he or she does not already know the answer. Nor is the expert retained by the court to advise the judge but by one of the two oppos-

"IT STARTED WITH A SIMPLE CASE OF PEER-REVIEW."

ing parties to support its side of the case. Nevertheless, the expert must testify truthfully regardless of which side may benefit or lose from that testimony. The expert witness, in spite of the adversarial arena and courtroom theatrics, should always answer honestly, deliberately avoid becoming involved as a combatant and remember that the role is to provide information, explanation and interpretation of complicated medical issues to a non-medical audience.

A great deal of interest is currently being shown by professional medical organizations in the expert witness, especially as it relates to qualifications, conduct and function of expert witnesses in medical liability cases. The two areas of major concern are legislatively defining the requirements and qualifications for expert witnesses and finding ways of ensuring that expert testimony is fair and accurate and based on knowledge and experience, without abridging the individual's right to freedom of speech.

Some practical pointers on being an effective expert witness and measures being taken by professional medical organizations to solve the problem of the itinerant testifier will be discussed in an upcoming issue of the *Loss prevention* series.

Suggested Reading

1. Rovit RL, Hauber C: The expert witness: some observations and a response from neurosurgeons. *Amer Coll Surg Bulletin* 1989;74:10–16.
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4. Zirbel IW, ed: *DDI Update: The expert issue.* DDI Update 1988 (Spring);1: 2–16. Doctors Defense Institute, Inc, 7500 E Butherus Dr, Scottsdale, AZ 85260.

Dr Kidder is a member of the SMS Medical Liability Committee. Reprint requests to: Thomas M. Kidder, MD, Suite 201, 2901 W Kinnickinnic, Milwaukee, WI 53215.

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Public health

Project SENSOR: Occupational disease and injury surveillance

Henry A. Anderson, MD,
Dee Higgins, RN, and
Lawrence P. Hanrahan, MS
Madison

In 1986, NATIONAL EXPERTS estimated that from 5.6 million[1] to 11.3 million persons suffered work related injuries each year.[2] This represents from eight to 16 injuries per 100 full-time workers annually. The Office of Technology Assessment estimates that 6,000 persons die each year from occupational injuries, or about 25 deaths each working day.[1] In 1986, the National Safety Council estimated the total financial burden of work injuries at $34.8 billion.[3] An insurance industry report estimated the cost of injuries claimed under worker's compensation at $60 billion annually.[4]

Occupational illness and injury are preventable. The number of worker injuries has steadily increased in Wisconsin. The number of likely compensable workers compensation injuries has risen from 54,854 in 1982 to 76,917 in 1988, with wage compensation estimated at $557,877,846 for the 1988 cases (exclusive of medical care costs).[5] Indirect costs include lost production, the cost of investigating accidents, preparing reports and rendering first aid, cost of property damage caused by the accidents, training costs for replacement workers and increased costs of insurance premiums. The disabled worker imposes financial costs to society through rehabilitation programs, welfare, Medicaid or social security disability benefits. The cost of human pain, grief, and suffering experienced by these workers and their dependents cannot be calculated.

Workers compensation claims represent a wealth of information on occupational injuries. These data can serve as an excellent starting point for the surveillance of occupational injuries. However similar systems do not exist for occupational disease; no information data base exists statewide or nationally to ascertain the scope and magnitude of the occupational disease burden to our society. Indeed, Congressional testimony found occupational disease surveillance to be "fragmented, unreliable, and 70 years behind communicable disease surveillance."[6] In response to this testimony, Congress directed the National Academy of Sciences to study the problem of occupational disease and injury surveillance.[7] The implementation of physician based reporting programs was among the panel's 24 recommendations to improve occupational disease surveillance.

The Wisconsin Division of Health (DOH) has started a project for the surveillance and prevention of occupational diseases and injury. In 1987,

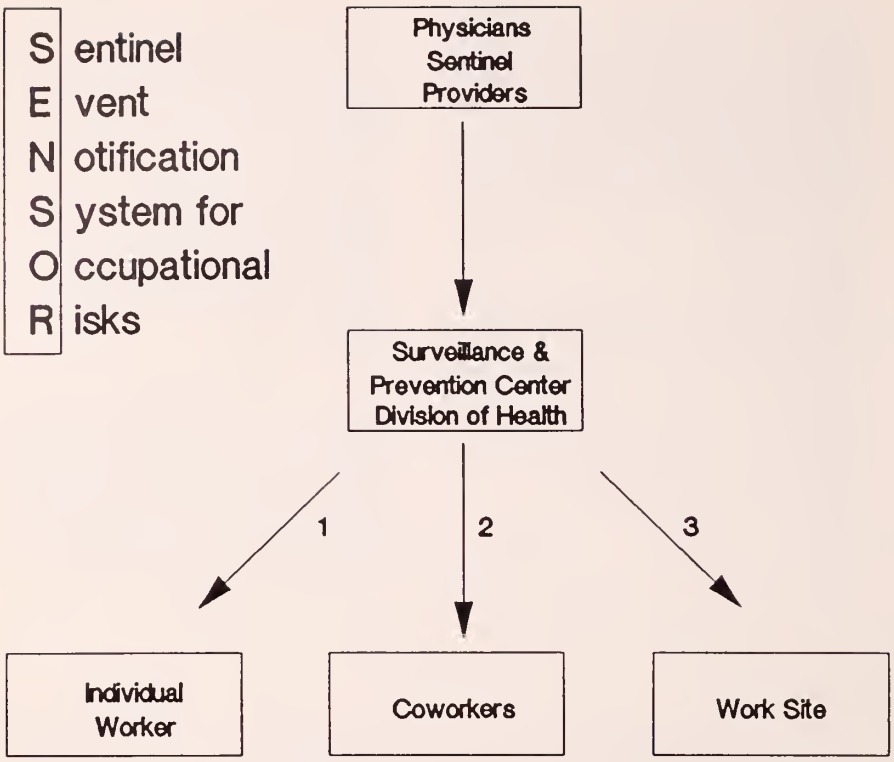

Fig.—Wisconsin Division of Health occupational disease surveillance and intervention model.

Series coordinators
The Wisconsin Division of Health's Henry Anderson, MD, chief of the Section of Environmental and Chronic Disease Epidemiology, and Patrick Remington, MD, are coordinating this public health series for the *Wisconsin Medical Journal*. Dr Anderson is chief investigator of the Wisconsin Sentinel Event Notification System for Occupational Risks (SENSOR) surveillance project which is funded through a grant from the National Institute for Occupational Safety and Health, and in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR), US Public Health Service. For more information on this project contact Dee Higgins at 608-267-3256 or Joe Schirmer at 608-266-5885. Drs Anderson and Remington welcome your comments on this and all subsequent reports.

Wisconsin joined a network of ten states working in a pilot program with the Centers for Disease Control (CDC), National Institute for Occupational Safety and Health (NIOSH). The goal of this program is to improve occupational disease and injury surveillance. The NIOSH Sentinel Event Notification System for Occupational Risks (SENSOR) model,[8] shown in the Figure, depends upon physician reporters, DOH Prevention Center data analysis, and intervention to workers, coworkers and to the work site. The system is a physician-based reporting model which is similar to the one used for reporting communicable diseases. This system is founded upon the timely reporting of "occupational sentinel health events."

An occupational sentinel health event signals the failure of public health prevention efforts, but it also represents an opportunity to prevent further disease occurrences. An occupational sentinel health event is defined as a preventable disease, disability, or untimely death which is occupationally related and whose occurrence may provide the impetus for epidemiologic or industrial hygiene studies or serve as a warning signal that materials substitution, engineering controls, personal protection, or medical care may be required.[9]

Physician case reports are vital to the success of the SENSOR program. A pilot group of 22 Wisconsin physicians was asked to participate. Physicians were selected through specialty affiliations or if they observed a significant number of SENSOR cases in their practice. The Wisconsin SENSOR targeted conditions include occupational asthma, hypersensitivity pneumonitis, silicosis, asbestosis, carpal tunnel syndrome and lead poisoning. These were chosen from the NIOSH SENSOR list of conditions to be reported and pilot tested by the program. NIOSH chose these conditions because they are attributed to work in a high percentage of cases, they are preventable, and many are reversible.

The DOH surveillance staff receive all case reports, and upon review enters them into a computerized data base. These data are then analyzed to determine risk indicators such as industry, occupation, age, race, gender, and length of employment. The information is distributed back to sentinel reporters and is used in informational articles and papers. All data are kept confidential; any reports published are in statistical or aggregate form without patient-worker, physician, or company specific identifiers.

The Table shows the reported cases of these occupational diseases in Wisconsin. Included in the Table is the date reporting began and the cumulative reports to date. A total of 32 occupational asthma cases and 154 cases of carpal tunnel syndrome have been reported since program inception. A total of 1,316 reports of elevated blood lead levels have been received, with 236 of these cases above the OSHA action limit of 40 μg/dl (the lead exposure reports exceed the case numbers because many reports are repeat tests on exposed individuals). Finally, 14 silicosis cases and eight asbestosis cases

have been received. The last two columns of the Table display the results of the radiologic consultation component of SENSOR. This aspect of SENSOR offers an evaluation of a worker's roentgenogram using the International Labor Office's (ILO) B-Reader criteria for evaluating pneumoconioses. Dr Anderson is a certified ILO B-Reader and has been performing this service since May, 1985. A total of 1,470 films have been evaluated to date, with 327 of these presenting pleural changes consistent with pneumoconiosis or parenchymal changes of 1/0 or greater.

More sentinel event reporters are needed. Primary care physicians are encouraged to participate along with specialty physicians. Because primary care physicians form the front line of occupational disease surveillance, the Institute of Medicine has published a valuable book entitled *The Role of the Primary Care Physician in Occupational and Environmental Medicine*. In summary the primary physician is encouraged to:

- take a concise and systematic occupational history,
- understand the Worker's Compensation Law and the Employee Right to Know Law,
- understand the community's industrial base and the associated risks to health and safety, and
- obtain access to reference data bases such as Medline and factual data bases such as Toxnet.[10]

The *Wisconsin Medical Journal* published an article on diagnosing occupationally induced diseases which provides a suggested form for use in taking an occupational history.[11]

The SENSOR model indicates that intervention (prevention) is the expected outgrowth of disease reporting (Figure). To that end SENSOR staff works with the OSHA consultation program when employers request industrial hygiene evaluations, or referrals are made to the Department of Industry Labor and Human Relations (DILHR) when public employees request site evaluation. Through contract with the University of Wisconsin Industrial Engineering Department, surveys for cumulative trauma risk factors are underway. Indirect interventions currently under development include acquiring occupational literature and films for dissemination, development of regional carpal tunnel syndrome seminars, additional surveillance publications, and the development of a select mailing list that would keep interested Wisconsin physicians updated on SENSOR activities.

The Wisconsin Prevention Center consists of state, federal, and university health and safety professionals who share worker injury and health responsibilities and interests. The group meets quarterly and coordination between programs has been greatly enhanced through collective enthusiasm and effort. Physicians are encouraged to use the resources listed below:

- Section of occupational health: Terry Moen, 608-266-8579.
- Madison area OSHA director: Don Brzowski, 608-264-5388.
- Appleton area OSHA director: Mel Leschefski, 414-734-4521.
- Milwaukee area director: Jerry Cunningham, 414-291-3315.
- Worker's Compensation Law: Helen Schott, 608-266-1340.
- Occupational Health Laboratory: Terry Burke, 608-263-8160.
- Public sector employee safety and health: Ron Remy, 608-266-1930.
- Worker training programs: George Hagglund, 608-262-2111.

SENSOR staff, Dee Higgins, a Public Health Nurse and Joe Schirmer, a certified industrial hygienist along with epidemiologist supervisor Larry Hanrahan, are available Monday through Friday and have access to Prevention Center members with expertise in occupational medicine and nursing, industrial engineering, and epidemiology and will answer

Reported cases of occupational disease

Disease	Date reporting began	Cumulative through 9/6/89
Asthma reports	October, 1988	32
Hypersensitivity pneumonitis rep.	January, 1989	0
Carpal tunnel reports	January, 1989	154
Silicosis reports	January, 1988	14
Asbestosis reports	January, 1988	8
Lead exposure	December, 1987	
Elevated blood lead levels >25 μg/dL		
Reports (cumulative)		1316
Cases (individuals)		951
Action blood lead levels >40 μg/dL		
Reports (cumulative)		424
Cases (individuals)		236
Pneumoconiosis*	May, 1985	
# X-rays read		1470
# Positive X-rays		327

*Total 1988

*Pleural changes consistent with Pneumoconiosis or parenchymal changes 1/0 or greater. All individuals with positive x-ray findings get a follow-up letter indicating resources available.

questions or refer inquiries to the appropriate resources.

References

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2. Office of Technology Assessment, *Preventing Illness and Injury in the Workplace*, Congress of the United States, 1985, p 32.
3. *Accident Facts*, 1987 edition, National Safety Council, 1987.
4. Cudworth A: *The Insurance Industry*. The 1987 Conference on Injury in America. Public Health Reports (November–December), 6: 665, 1987.
5. Personal communication, Gene Vossberg, Wisconsin Worker's Compensation, September, 1989.
6. US Congress, House of Representatives. *Report on Occupational Illness Data Collection: Fragmented, Unreliable, and Seventy Years Behind Communicable Disease Surveillance*. Subcommittee on Government Operations, 98th Congress, 2nd Session. US Government Printing Office, 1984.
7. Pollack ES, Keimig DG (eds.): *Counting Injuries and Illnesses in the Workplace: Proposals for a Better System*. National Academy of Sciences, Committee on National Statistics. National Academy Press, Washington DC, 1987.
8. CDC-NIOSH. *SENSOR: Sentinel Event Notification System for Occupational Risks*. US Department of Health and Human Service, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health, Atlanta, Georgia, 1987.
9. Rustein D, MD, Mullan R, MD, et al: Sentinel health events (occupational): A basis for physician recognition and public health surveillance, *Am J of Pub Health*, September 1983, Vol 73, No 9.
10. Institute of Medicine: *Role of the Primary Care Physician in Occupational and Environmental Medicine*, National Academy Press, Washington, DC 1988.
11. Dodson V, Lindesmith L, Horvath E, et al: Diagnosing occupationally-induced diseases, *Wis Med J* 1981; 80(12):18–20.

AMA awards

The Wisconsin physicians listed below recently earned AMA Physician's Recognition Awards. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations. The * indicates members of the SMS.

July, August, September

Al-Zem, Mohamed W., Superior
*Annesley, William H., Wauwatosa
*Avecilla, Constante S., Marshfield
*Bartholmai, Jack R., Beaver Dam
*Basu, Sailendra N., Wausau
*Belgado, Paulino G., Clintonville
*Beltaos, Efstathios, Marshfield
Beres, James J., Wauwatosa
*Boulet, Wilbur J., Marshfield
*Boxer, Richard J., Milwaukee
*Caine, Marc R., Milwaukee
*Chancey, Robert L., Beloit
*Charipar, Ron M., Ladysmith
*Cooper, Ronald J., Lake Tomahawk
*Cornelius, Peter L., Jackson
*Damiani, Kathleen K., Racine
*Elson, Matthew W., Milwaukee
*Fletcher, Fred W., Eagle River
Foerster, Harry R., Milwaukee
Fritsch, Michael K., Madison
*Garitano, William W., Marshfield
Gilliam, Haywood S., Middleton
*Govin, Gerald G., Milwaukee
*Groth, Boyd J., Mosinee
Harbin, Adie D., La Crosse
*Herbert, Timothy G., Marshfield
*Hizon, Josefina L., Sheboygan
*Hoyer, John K., Rice Lake
*Jachowicz, Robert B., Hales Corners
*Jimenez, Miguel A., Shawano
*Johnstone, Michael F., Milwaukee
Josefski, Mark A., Madison
*Kidder, Thomas M., Milwaukee
*Knoch, Frederick W., Neenah
*Kryda, Michael J., Marshfield
*Kuehner, Marvin E., Marshfield
*Kunkel, James A., Marshfield
*Larson, David L., Wausau
*Lewan, Richard B., Waukesha
*Liss, Paul L., Marshfield
*Loescher, Thomas M., Appleton
Marks, Stanton A., Milwaukee
*Markson, John W., Milwaukee
*Mc Donough, John W., Wisconsin Rapids
*Milbrath, John R., Milwaukee
*Nelsen, Paul D., Green Lake
*Nordyke, Gary D., Wauwatosa
*Park, Roger W., Marshfield
*Poll, Marvin, Milwaukee
*Rieder, Michael J., Neenah
*Riese, David C., Monroe
*Robertson, Russell G., Milwaukee
*Sautter, Richard D., Marshfield
*Schmitz, John T., Milwaukee
*Schuh, Eugene P., Watertown
Sennett, Louis W., Milwaukee
*Seno, Louis S., Milwaukee
Siepmann, James P., Oshkosh
*Smigielski, Kenneth M., Milwaukee
*Smith, Martin J., La Crosse
*Snow, Patrick D., Appleton
*Stiehl, Charles W., Milwaukee
*Storm, Frederick K., Middleton
*Tiu, Alfonso L., West Allis
Tucker, Alex S., Milwaukee
Turkington, Roger W., Milwaukee
Tuttle, Thomas F., Stanley
*Twiggs, John T., Marshfield
*Wagner, Marvin, Milwaukee
*Warner, John J., Marshfield
*Wineman, Bruce A., Marshfield
*Zajac, Dorothy J., Janesville
*Ziemer, John L., Ladysmith

Physician briefs

Kevin T. Flaherty, MD,* recently joined the Eye Clinic of Wausau. Dr Flaherty received his medical degree from the Stritch School of Medicine at Loyola University in Chicago and served an internship at Sacred Heart Medical Center in Spokane, Wash. He completed a residency in ophthalmology at Loyola and a fellowship at the University of Louisville.

Jean Bruce, MD, has joined the staff of the Associated Family Physicians of Berlin and Wautoma. Dr Bruce received her degree from the University of Wisconsin Medical School and completed a residency with the Appleton Family Practice Residency. She is a native of Berlin.

Sheila A. Mitchell, MD,* recently joined the staff of Medical Associates North in Ashland. She will serve as an emergency room physician at Memorial Medical Center. A native of Illinois, Dr Mitchell received her medical degree from the Royal College of Surgeons in Ireland and completed postgraduate training in internal medicine at St Mary's Health Center in St Louis.

Kay M. Balink, MD,* has joined the staff of the Spring Green Medical Center as a family practitioner. She received her medical degree from St George University in Grenada, West Indies, and completed a residency in family practice at University Hospital and Clinics in Madison. She also spent a year with the National Health Service in Great Britain.

James T. Mulry, MD, recently opened his family medicine practice at the Frederic Clinic. Dr Mulry graduated from the University of Iowa Medical School in Iowa City and completed a residency at Fairview and St Mary's hospitals in Minneapolis. He most recently practiced in Eau Claire.

Mark Hofer, MD, recently joined the medical staff of Victory Memorial Hospital and Nursing Home in Stanley. A pathologist, Dr Hofer received his medical degree from the University of South Dakota in Vermillion and completed a residency at University Hospital and Clinics. He is associated with Pathology Services Corporation at Sacred Heart Hospital in Eau Claire.

Carol M. Dinges, MD,* has joined the La Farge Medical Clinic. She previously was with the Richland Medical Clinic. Dr Dinges graduated from the University of Wisconsin Medical School and has served with the United Nations in Thailand.

Kathy A. Vogel, MD,* recently joined the Dean Medical Center's Monona office. An ophthalmologist, Dr Vogel previously served as a clinical instructor on the medical staffs of the Veterans Administration Hospital and the University of Wisconsin Hospital and Clinics in Madison. She received her degree from the University of Wisconsin Medical School.

Blue Book update

On page 61 of the July *WMJ* Book Book, under the Membership committee (ad hoc), please add Carlos A. Jaramillo, MD, Monroe. Also on page 61, under the Mental Health committee, delete Barry Blackwell, MD, of Milwaukee.

On page 60, under the Study Committee on Maternal Mortality Survey, please add Daniel F. Johnson, MD, of Eau Claire.

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Obituaries

Edwin C. Albright, MD, 73, of Madison, died Sept 17, 1989, in Middleton. Born Oct 8, 1915, in Iowa City, Iowa, Dr Albright graduated from Harvard Medical School and served his internship at Massachusetts General Hospital in Boston. He served in the Army Medical Corps during World War II. Dr Albright came to the University of Wisconsin, Madison, in 1946 and during 28 years on the faculty, he was a teacher, clinician, and researcher with a special interest in diseases of the thyroid. He served as assistant dean for clinical affairs, University Hospital chief of staff, and director of the Wisconsin Preceptorship Program. He retired in 1975, and in 1976 he received the Emeritus Faculty Award of the Wisconsin Alumni Association. Dr Albright was a member and had served as president of the Dane County Medical Society in 1970–1971. He had served on the SMS Commission on Scientific Medicine and was co-editor of the Comments on Treatment articles which appeared in the *WMJ*. Dr Albright was a member of the American College of Physicians, American Society for Clinical Investigation, Society for Clinical Research, the Endocrine Society, the SMS, and the AMA. Surviving are his widow, Mary; sons John, of Seattle, David, of Duluth, Minn, George, of Fitchburg, and William, of Cottage Grove; and seven grandchildren.

Herbert J. Buchsbaum, MD, 55, of Milwaukee, died Sept 25, 1989, in Milwaukee. Born June 7, 1934, in Vienna, Austria, Dr Buchsbaum graduated from the University of Munich Medical School, West Germany, and served his residency at Kings County Hospital, Brooklyn, NY. He was awarded a National Institutes of Health Cancer Control Senior Clinical Fellowship, which he served in gynecologic oncology at State University of New York-Downstate Medical Center. He served as an investigator at Sloan Kettering Institute for Cancer Research in New York for one year. Dr Buchsbaum joined the faculty of the Medical College of Wisconsin in 1988. Prior to joining the Medical College, Dr Buchsbaum was professor of obstetrics and gynecology at the University of Pittsburgh College of Medicine and director of gynecology-oncology at Magee Women's Hospital. He was a member of the American College of Surgeons, American College of Obstetricians and Gynecologists, and the Society of Gynecological Oncologists. He also was a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Linda, and two children, Jonathan, of Boston, and Julie Anne, of Milwaukee.

James W. Erchul, MD, 65, of Menasha, died Oct 2, 1989, in Appleton. Born Dec 6, 1923, in Buhl, Minn, Dr Erchul graduated from the University of Minnesota Medical School, and completed his internship and residency at St Mary's Hospital in Duluth, Minn. He was director of laboratories and chief pathologist at St Elizabeth Hospital in Appleton. He served on the board of directors of St Elizabeth and Appleton Memorial hospitals, served as chief of staff at St Elizabeth Hospital, and served as vice president Board of Directors of the Community Blood Center. In addition to holding adjunct faculty status at three University of Wisconsin campuses, Dr Erchul was the medical director of the St Elizabeth School of Medical Technology from it's inception in 1968. Surviving are his widow, Harriet; sons and daughters-in-law John A. and Jean M. Erchul, of Tempe, Ariz; James C. Erchul and Nanette L. Dahms, Egan, Minn, and William P. Erchul, and Ann C. Schulte, of Durham, NC, and four grandchildren.

Louis Kagen, MD, 69, of Milwaukee, died Oct 9, 1989, in Milwaukee. Born Sept 9, 1920, in Milwaukee, Dr Kagen graduated from the University of Wisconsin Medical School in Madison and served his internship at Michael Reese Hospital in Chicago. His residency was completed at the Hospital for Joint Diseases in New York. He had been a member of the medical staff of Mt Sinai and Columbia hospitals in Milwaukee. He was a member of the Medical Society of Milwaukee County, the SMS, and the AMA. Surviving are his widow, Carolyn; a daughter, Susan, of Whitefish Bay; a son, Robert, of Whitefish Bay, and a brother, Allan Kagen, MD, of Milwaukee.

Karver L. Puestow, MD, 91, of Madison, died Sept 16, 1989, in Madison. Born on Nov 1, 1897, in Oshkosh, Dr Puestow graduated from

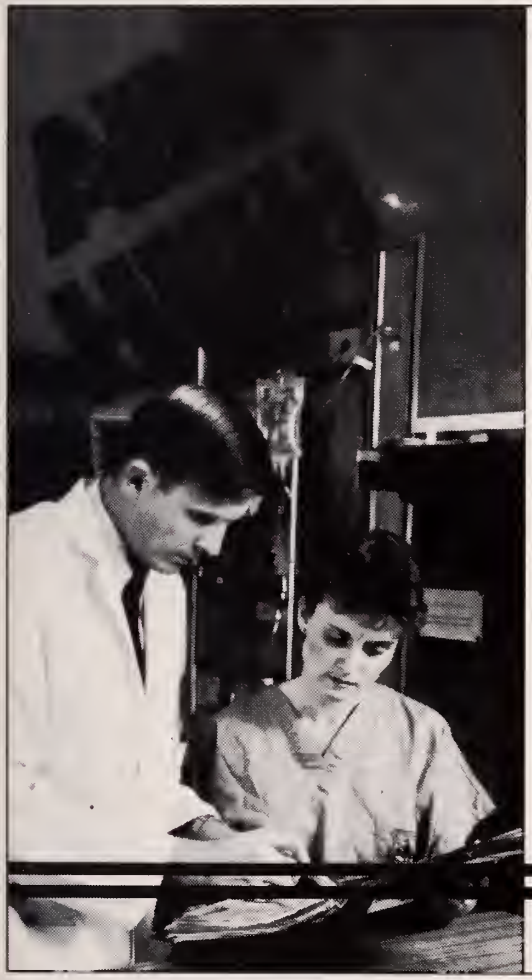
Tributes to loved ones can help others

The memorial program of the Charitable, Educational and Scientific Foundation of the SMS offers physicians a unique opportunity to provide a living memorial to a loved one or friend through a gift to the foundation. A memorial contribution can provide financial aid to a needy medical student, help stimulate research on behalf of public health or aid in the preservation of Wisconsin's medical history. When a memorial gift is made to the foundation, the deceased person's family receives a special card with the name of the donor. For more information, contact the foundation staff at the SMS.

the University of Minnesota School of Medicine and served his internship at City Hospital in Cleveland. He joined the University of Wisconsin faculty in 1922 as an instructor and a physician in the student health clinic. In 1926, he was made director of the outpatient department. In 1932, Dr Puestow established the first teaching clinic in gastroenterology. The Stovall Medical Museum at Prairie du Chien displays some of his original gastroscopy instruments and the Smithsonian Institution houses the esophegeal dilator which he invented. Dr Puestow was also chief of staff at University Hospital, Madison. He retired in 1968 and in 1975 was awarded the Emeritus Faculty Award from the University of Wisconsin. Dr Puestow was a member of the American Therapeutic Society, the American Society of Gastrointestinal Endoscopy, the American College of Physicians, the Dane County Medical Society, the SMS, and the AMA. Surviving are his daughter, Mary Wollersheim, of Milwaukee, two grandchildren, and two great-grandchildren.

William C. Sheehan, MD, 81, of Stevens Point, died Aug 30, 1989, in Stevens Point. Born Oct 24, 1907, in Milwaukee, Dr Sheehan graduated from the University of Wisconsin Medical School, Madison, and served his internship at University of Wisconsin Hospital in Madison. Dr Sheehan served in the US Marine Corps during World War II. After service he returned to Stevens Point to continue his medical practice until his retirement in 1972. He was a member of the Portage County Medical Society and the SMS. Surviving are his widow, Antoinette, and sons Tim, of Stevens Point, John, of Orlando, Fla, and Mike, of Seattle.

Robert F. Frederickson, MD, 54, of Tiburon, Calif, died Sept 14, 1989, in Tiburon. Born in Madison, Dr Frederickson received his medical degree from Northwestern University School of Medicine. He became associated with the San Raphael Medical Group in Tiburon in the department of pediatrics. Dr Frederickson was the founder of a full scale intensive care nursery for Marin General Hospital in Tiburon, and was the director for many years. Surviving is his mother, Jean, of Madison.



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AIR FORCE

County society news

Fond du Lac. Joseph Talley, MD, of Charleston, SC, was the guest speaker at the Fond du Lac County Medical Society meeting. The title of his speech was "Can You Give Me Something For My Nerves, Doc?" Other guests were Sen Carol Buettner and Rep Peg Lautenschlager who answered questions on medical liability reform, durable power of attorney, insurance for the uninsured, and mandatory Medicare assignment. The following physicians were accepted to membership: Alan W. Roetker, MD, Teodore D. Miller, MD, Lawrence F. Reich, MD, Matthew P. Doering, MD, John K. Choi, MD, and Halina K. Harding, DO.

Wood. Fifty-two members and guests were present at the October meeting of the Wood County Medical Society. William L. Treacy, MD, president of SMS, spoke on politics and medicine. Newly elected officers are: Louis C. Hacker, MD, president; Theodore A. Praxel, MD, vice-president, and Michael J. Kryda, MD, secretary-treasurer. Delegates re-elected are Michael J. Kryda, MD, William J. Maurer, MD, Michael P. Mehr, MD, Robert E. Phillips, MD, Charles E. Sorensen, MD, and John E. Thompson, MD. Alternates are Richard W. Clasen, MD, Louis C. Hacker, MD, Mario V. Ponce, MD, Theodore A. Praxel, MD, and Homer H. Russ, MD. Ali Choucair, MD, will replace Jung K. Park, MD, as an alternate.

Winnebago. Thirty members and three guests were present at the October meeting of the Winnebago County Medical Society. Guest speaker, Donald Miech, MD, of Marshfield, spoke on pharmacological treatment of hair loss.

Specialty society news

Wisconsin Society of Internal Medicine installed William J. Listwan, MD,* of West Bend, as the president for 1989–90, at its annual meeting. He succeeds Susan L. Turney, MD,* of Marshfield. Dr Listwan was elected to the WSIM council in 1983. He served as chair of the Socioeconomic Program Committee in 1985, Legislation Committee chair from 1986–1989 and president-elect in 1988. He graduated from Marquette University School of Medicine and served his internship at the Wayne County General Hospital of Eloise, Mich. His residency was completed at the Medical College of Wisconsin.

Other officers announced at the annual meeting were Robert E. Phillips, MD,* president-elect, and Richard A. Dart, MD,* secretary-treasurer, both of Marshfield. Daniel L. Johnson, MD,* of Menomonie, Frederick J. Lamont, MD,* of Green Bay, and Bruce A. Polender, MD,* of La Crosse, were elected to three-year terms on the WSIM Governing Council. Steven B. Greenman, MD, of Milwaukee, and Robert Gilbert, MD,* of Madison, were re-elected to second terms.

Continuing on the council are James L. Algiers, MD,* of Hartford, Bruce A. Kraus, MD,* of Columbus, Daniel T. Peterson, MD,* of Janesville, and Thomas E. Looze, MD,* of West Bend. Danny A. Lundberg, MD,* of Marshfield, was elected to serve as the council's resident member. Paul P. Carbone, MD,* of Madison, was designated an ex-officio member of the council as the American College of Physician's governor for Wisconsin. The ACP governor-elect is Joseph J. Mazza, MD,* of Marshfield.

In other business at the meeting, Robert E. Phillips, MD,* of Marshfield, was named as the recipient of WSIM's 1989 Addis Costello Internist of the Year Award. The 1989 WSIM Distinguished Internist Award was presented to James R. Mattson, MD,* of Green Bay.

Prolonged AZT therapy increases AIDS patient survival

Prolonged zidovudine (AZT) therapy for patients with AIDS and AIDS-related complex continues to suggest increased survival benefits, according to a recent report in *JAMA*. A study at the University of Miami found that adverse reactions to AZT decreased over time and observed toxic reactions were unusual. Researchers report more than one-half of the original AZT-treated patients with AIDS survived 21 months following the diagnosis of pneumonia, nearly twice the reported survival of AIDS patients not treated with AZT. AZT therapy also decreased the rate of development of opportunistic infections in patients with advanced AIDS-related complex progressing to AIDS.

Index to articles: 1989

Key to numbering: The first number is the issue number (eg, January is 1, February is 2, etc). The second number is the page number within the issue. All issues are Vol 88.

Authors of scientific articles

(All authors are MDs unless otherwise noted.)

Andresen, Bryan L., Milwaukee: 10-28
Auer, James E., Milwaukee: 4-19

Baldauf, Mary C., Marshfield: 9-10
Barton, Lane W., Milwaukee: 10-28
Baumgardner, Dennis J., Milwaukee: 9-12
Beasley, John W., Madison: 1-11
Bemmann, Kathryn C., Waukesha: 5-11
Berg, Dale, Milwaukee: 5-25
Blumenthal, Melvin S., Monroe: 5-17
Boller, Larry R. (BS), Monroe: 5-17
Brandes, James E., Milwaukee: 11-29
Bruns, Theodore, Milwaukee: 3-14

Cerletty, Jamaes M., Milwaukee: 11-29
Christopherson, Avis (LPN), Milwaukee: 9-12
Czarnecki, David J., Milwaukee: 4-15
Chusid, Michael J., Milwaukee: 3-11
Colby, Holly (RN), Madison: 3-14
Cole, June (PhD), Marshfield: 11-21
Cooley, Peter A., Milwaukee: 4-15
Czarnecki, David J., Milwaukee: 4-15

Dahlberg, Philip J., La Crosse: 5-22, 9-16, 12-19
Drinka, Paul J., King: 12-23
Dunne, W. Michael (PhD), Milwaukee: 3-11

England, Douglas M., Madison: 11-17

Farrell, Philip, Madison: 3-14
Findling, James W., Milwaukee: 10-19
Fost, Norman, Madison: 3-14
Fueredi, George A., Milwaukee: 4-15

Gecht, Eli A., Milwaukee: 3-11
Goodwin, Jean, Milwaukee: 5-11
Goswitz, MD, John T., Manitowoc: 1-15
Gradus, M. Stephen (PhD), Milwaukee: 4-17

Halverson, Gloria M., Waukesha): 6-19, 6-21
Hassemer, David (MS), Madison: 3-14
Hay, Donald P., Milwaukee: 4-13, 12-4
Hejka, Anthony G., Madison: 11-17
Hensen, Richard M., Milwaukee: 5-25
Hoffman, Martin D., Milwaukee: 10-28
Hohensee, Patricia (RN), Milwaukee: 4-19
Holt, James J., Marshfield: 3-13

Inhorn, Stanley L., Madison: 9-7
Iriondo, Manuel, Madison: 2-18

Jarenwattananon, Marisa, Milwaukee: 2-11
Jones, Rhys B. (DDS), Madison: 3-18

Kerr, Harry D., Milwaukee: 2-15
Kirby, Barbara D., Milwaukee: 10-16
Kuthy, Raymond A. (DDS), Columbus, OH: 3-18

Langer, Elizabeth (MS) (RNC), King: 12-23
Larson, Paul O., Madison: 2-18, 12-8
Larson, Paula R., Milwaukee: 10-19, 12-8
Laessig, Ronald (PhD), Milwaukee: 3-14
Laufenburg, Herbert F., Milwaukee: 2-19
Levy, Steven M. (DDS), Iowa City, Ia: 3-18

McCarthy, Cathy (RN), Milwaukee: 3-14
Meier, Paul R., Marshfield: 9-10, 11-21
Mischler, Elaine, Madison: 3-14
Mohs, Frederic E., Madison: 2-18
Momont, Sheila L., La Crosse: 9-16, 12-28
Momont, Sue (non-MD), Madison: 9-16
Murthy, V. Shrinivas, Milwaukee: 12-25

Nichamin, Henry D., Milwaukee: 4-17
Nudel, Dov B., Milwaukee: 2-11

Overholt, Edwin L., La Crosse: 12-28

Perzigian, Robert W. (DO), Milwaukee: 3-11
Pohlmann, Guenther P., Milwaukee: 11-24

Reynolds, Norman C., Jr., Milwaukee: 12-25
Richards, Marcia J.S., Milwaukee: 9-7
Rock, Michael, Madison: 3-14

Sandmire, Herbert F., Green Bay: 6-23
Schaper, Ana (RN), La Crosse: 12-19
Schell, Ronald F. (PhD), Madison: 11-17

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Accepted for advertising in the AMA Journal

Schlenker, Thomas, Milwaukee: 10-13
Schmitz, John L. (MS), Madison: 11-17
Seifert, Paul E., Milwaukee: 4-19
Simpson, Deborah E. (PhD), Milwaukee: 10-16
Smith, Roy E., Milwaukee: 5-25

Tantengco, Maria Victoria, Milwaukee: 2-11
Temte, Jonathon L., Madison: 1-17
Tesch, Bonnie J., Milwaukee: 10-16
Theis, E. Howard, Fond du Lac: 6-25
Tluczek, Audrey (RN), Madison: 3-14

Voeks, Susan K. (PhD), King: 12-23

Wagner, Stephen, Marshfield: 11-21
Weinhouse, Elliot, Milwaukee: 2-11
Worthington, Dennis, Milwaukee: 6-26

Authors of non-scientific articles

(All authors are MDs unless otherwise noted.)

Anderson, Henry A., Madison: 12-35
Aronson, Richard (Madison): 10-35

Bauer, William B.A.J., Ladysmith: 7-8, 7-30

Carranza, Salvador (non-MD), Madison: 4-23
Cobb, James (PhD), Madison: 10-35

Griebel, Dorothy (OTR), Madison: 10-35

Handley, Jack (non-MD), Madison: 4-23
Hanrahan, Lawrence P., Madison: 12-35
Higgins, Dee (RN), Madison: 12-35

Lantz, Paula Lantz (non-MD),Madison: 9-38
Lehman, Rebecca (non-MD), Neenah: 3-30

Moss, Mark E. (DDS), Madison: 4-25

Overholt, Edwin L., La Crosse: 5-38

Peterson, Dan E., Madison: 11-29

Ralph, Victoria (non-MD), Madison: 4-23
Reineck, Michael C., West Bend: 3-32
Remington, Patrick L., Madison: 4-25, 5-32, 6-34, 9-38, 11-29
Roberts, Richard G., Madison: 1-23,9-35

Sandmire, Herbert F., Green Bay: 5-36
Shaker, Joseph L., Milwaukee: 10-19
Sproule, Randy (non-MD), Madison: 1-25

Wencel, Sally (JD), Madison: 3-25, 6-29, 9-27, 9-35
Wildner, Kristine (non-MD), Madison: 4-23
Yasnoff, William A., Chicago: 1-31
Yeazel, Daniel (non-MD), Madison: 4-23

Scientific articles, abstracts and information

AIDS among health care students, Knowledge of (Tesch, Simpson, Kirby): 10-16
Aortitis due to metastatic gas gangrene (Momont, Overholt): 12-28

Birth and Development Outcome Monitoring Program, Wisconsin's (BDOMP) (Aronson, Griebel, Cobb) (Madison): 10-35
Brachial plexus injury with should dystocia, Case report: (Loss prevention) (Sandmire): 5-36
Breast cancer in Wisconsin, Progress in the early detection of (Public health) (Remington): 5-32
—Breast cancer detection awareness project in Wisconsin 1987-1988 (Richards, Inhorn): 9-7
Brucellosis: An unusual cause of a child's fever of unknown origin (Chusid, Perzigian (DO), Dunne, et al): 3-14

Cancer, Progress in the early detection of breast (Public health) (Remington): 3-32
Cancer detection, Breast (Letters) (Larson): 12-8
Carcinomas, of the external ear, Micrographic surgery for (abstract): 2-18
Cardio-pulmonary resuscitation in a community hospital (Pohlmann): 11-24
Cerebral vascular accident, Maternal mortality in Wisconsin (Sandmire): 6-23
Chlamydia in pregnant women: southeastern Wisconsin (Baumgardner, Christopherson,Momont): 9-12
Choledochal cysts, Surgical procedures for (Goswitz): 1-15
Cushing's syndrome, Spurious elevation of plasma immunoreactive adrenocorticotropic hormone in cyclic (abstract): 10-18
Cystic Fibrosis, The Wisconsin experience in neonatal screening for (Mischler, Farrell, Bruns, et al): 3-14

Dietary fluoride supplements for children: What a physician needs to know (Jones, Levy, Kuthy): 3-18
Doc-in-a-box (Soundings) (Schiedermayer): 8-14
Drugs, Self-poisoning with (Kerr): 2-15

Ear, Diseases of the external (Clinical briefs) (Holt): 3-13
ECT, the enigma of the stigma of (Hay): 12-4
Embolism, Maternal mortality in Wisconsin (Worthington): 6-26
EMP with computed tomography, Evaluating (Fueredi, Czarnecki, Cooley): 5-15
Ethylene glycol poisoning (Momont, Dahlberg): 9-16
Euthanasia and dying with dignity, Passive (Bauer): 7-8
—Euthanasia, The medical examiner and (Letters) (Jentzen): 8-9
—Euthanasia and the British Medical Association (Editorials) (Mullooly): 11-8

Family physician shortage, Wisconsin's (Beasley): 1-11
Fetal alcohol syndrome, SMS takes position on: 10-42
Fluoride supplements for children: What a physician needs to know (Jones, Levy, Kuthy): 3-18
Football injuries: Field conditions and other factors, High school (Andresen, Hoffman, Barton): 10-28
Haloperidol: Predictors of success, Treating Tourette syndrome with (Schwabe, Konkol): 10-23
Hepatitis B, Few physicians vaccinated against: 4-14
Hypophysitis: case report and review, Pregnancy in lymphocytic (Brandes, Cerletty): 11-29
HIV among pregnant women: north central Wisconsin (Meier, Baldauf): 9-10

Infant exercise: 10-22
Infection, Maternal mortality in Wisconsin (Theis): 6-25
Jamshidi needle biopsy, Diagnosis of renal osteodystrophy with the (Dahlberg): 5-22

Laboratory dollars and sense, The use of the (Overholt): 5-38
Lead in Milwaukee's water, The effects of (Schlenker): 10-13
Lyme disease, The pathologist's view (Hejka, England, Schmitz,Schell): 11-17
—Lyme hysteria (Editorials) (Sautter): 7-5

Mammography guidelines and practices in Wisconsin (Remington, Lantz): 9-38
Maternal Mortality
—The SMS Study Committee on Maternal Mortality Survey (Halverson): 6-19

—Maternal mortality in Wisconsin: 1971-1987 (Halverson): 6-21
—Maternal Mortality in Wisconsin: cerebral vascular accident (Sandmire): 6-23
—Maternal mortality in Wisconsin: infection (Theis): 6-25
—Maternal mortality in Wisconsin: embolism (Worthington): 6-25
Medicaid patients' use of HMO services (Laufenburg): 2-19
Metastatic evaluation, Computerized tomography in (Smith, Berg, Hensen): 5-25
Micrographic surgery for carcinomas of the external ear (abstract) (Mohs, Larson, Iriondo): 2-18
MSAFP screen, The *provisional normal* (Meier, Cole, Wagner): 11-21
Myocardial revascularization in Jehovah Witnesses (Seifert, Auer, Hohensee): 4-19

Neonatal screening for cystic fibrosis in Wisconsin (Mischler, Farrell, Bruns, et al): 3-14
Nutritional intake in nursing home residents, Estimating (Drinka, Langer, Voeks): 12-23

Osteodystrophy with the Jamshidi needle biopsy, Diagnosis of renal (Dahlberg): 5-22

Pregnancy in lymphocytic hypophysitis: case report and review (Brandes, Cerletty): 11-29
Psychiatric patients, Exploring environmental cycles in (Temte): 1-17
Psychiatrists, New laws about sexual misconduct by therapists knowledge and attitudes among Wisconsin (Bemmann, Goodwin): 5-11
Psychiatry, Back to the future looking ahead in (Hay): 4-13
Public Health
—Chronic disease mortality and risk factors in Wisconsin, 1986 (Remington, Moss): 4-25
—Progress in the early detection of breast cancer in Wisconsin (Remington): 5-32
—Trends in lung cancer mortality in Wisconsin (Remington, Fiore): 6-34
—Routine checkups among Wisconsin adults: 1987-1988 (Remington, Lantz):10-38
—Publicity, policy and trends in cigarette smoking: Wisconsin 1950-1988 (Peterson, Remington): 11-40

Radon, awareness and detection a model program, Community (Blumenthal, Boller): 5-17
Renal failure in octogenarians (Dahlberg, Schaper): 12-19
Renal osteodystrophy with the Jamshidi needle biopsy, Diagnosis of (Dahlberg): 5-22
Resuscitation in a community hospital, Cardio-pulmonary (Pohlmann): 11-24
Rheumatic fever in Wisconsin, Acute (Tantengco, Weinhouse, Jarenwattananon, et al): 2-11

Serum free levels and evaluating anticonvulsant drug interactions (Reynolds, Murthy): 12-25
Sexual misconduct by therapists knowledge and attitudes among Wisconsin psychiatrists (Bemmann, Goodwin): 5-11
Shigellosis winter trends in Milwaukee (Gradus, Nichamin): 4-17

Tomography, Evaluating EMP with computed (Fueredi, Czarnecki, Cooley): 4-15
—Computerized tomography in metastatic evaluation (Smith, Berg, Hensen): 5-25
Tourette syndrome with haloperidol: Predictors of success, Treating (Schwabe, Konkol): 10-23

Socioeconomic and ancillary articles

Abortion: 7-108
—Abortion reporting: 7-139

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INDICATIONS AND USAGE: BECAUSE OF REPORTS OF INTESTINAL AND GASTRIC ULCERATION AND BLEEDING WITH SLOW-RELEASE POTASSIUM CHLORIDE PREPARATIONS, THESE DRUGS SHOULD BE RESERVED FOR THOSE PATIENTS WHO CANNOT TOLERATE OR REFUSE TO TAKE LIQUID OR EFFERVESCENT POTASSIUM PREPARATIONS OR FOR PATIENTS IN WHOM THERE IS A PROBLEM OF COMPLIANCE WITH THESE PREPARATIONS.

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burn; adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS.**

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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Continued from preceding page

Abuse reporting law needs changes, Child (Letters) (Miller): 1-8
Adoption in Wisconsin: 7-143
—Adoption service agencies: 7-143
—Adoption revisited (Letters) (Buck): 8-12
AIDS estimates: 1-39
—Testing and reporting of AIDS and HIV: 7-149
—OCI rules: 7-152
—Wisconsin's AZT reimbursement program: 7-152
—Patient consent form to test for antibody to HIV: 7-153
—Patient's billing consent for HIV testing: 7-155
—Information and testing sites: 7-156
—Wisconsin's partner referral program: 7-161
—AMA policy on treating AIDS patients: 7-163
—HIV among pregnant women north central Wisconsin (Meier,Baldauf): 9-10
—AIDS among health care students, Knowledge of (Tesch, Simpson, Kirby): 10-16
AMA judicial opinions: 8-28
—AMA Self-designated practice specialties (primary and secondary) with codes: 8-32
Anti-tobacco campaign, Physician help requested in: 1-30
Assembly committee holds hearing on durable power of attorney: 10-38
Assistants, The changing role of physician (Lehman): 3-30
Attorney, Wisconsin's durable power of (Wencel): 3-25

Battle, Preparing for the: 2-25
Bioethics, The relation of the holocaust (Editorials) (Edwards): 11-12

California's cap on noneconomic damages: 6-34
Certification: 7-109
Child abuse: 7-109
Chiropractic scope of practice: 5-48
Cigarette smoking: Wisconsin 1950-1988, Publicity, policy and trends in (Peterson, Remington): 11-40
Clearinghouse, Wisconsin information: 7-128
Communicable diseases, Reporting: 7-132
Consent and related forms: 7-121
—Important definitions regarding consent law: 7-126
Crime victim compensation: 7-141
Current issues in brief: 7-108

Disabled, Parking privileges for the: 7-129
—Application for special identification card: 7-130
Disability claims: 7-109
Donations organs and body: 7-109
Drinking age, SMS opposes proposal to lower: 5-46

Electronic information Part II (Yasnoff): 1-31
Expenditure targets (ETS): 10-35
Euthanasia and the British Medical Association (Editorials) (Mullooly): 11-8

Fetal alcohol syndrome, SMS takes position on: 10-42

Guns, Young: 5-51

Health care costs and social commitment (Editorials) (Mullooly): 8-6
—Health information, How to get: 7-143
HIV, Testing and reporting of AIDS and: 7-149
—OCI rules: 7-152
—Wisconsin's AZT reimbursement program: 7-152
—Patient consent form to test for antibody to HIV: 7-153
—Patient's billing consent for HIV testing: 7-155
—Information and testing sites: 7-156

—Wisconsin's partner referral program: 7-161
—AMA policy on treating AIDS patients: 7-163
HMOs, MDs, and the term "hold harmless" (Adams): 6-4
—HMO services, Medicaid patients' use of (Laufenburg): 2-19
—HMO growth slows: 4-30
—HMO financial reports: 9-44

Impaired physician program: 7-93

Jury duty: 7-109

Laboratories, New law regulates physician office: 4-44
Laboratory dollars and sense, The use of the (Overholt): 5-38
Law creates confusion, New nursing home: 4-44
—New law regulates physician office laboratories: 4-44
—Laws about sexual misconduct by therapists knowledge and attitudes among Wisconsin psychiatrists, New (Bemmann, Goodwin): 5-11
Legislation created to help Wisconsin's uninsured: 6-38
Legislative directory 1989-1990: 4-38
Letters: 1-8, 3-6, 6-10, 7-6, 8-9, 12-8
—Child abuse reporting law needs changes (Miller): 1-8
—Loss prevention article wins praise (Walsh): 3-6
—Pathologists remain united with medical profession (Zastrow): 3-6
—Right on (Vangor): 3-6
—A call to action (Schroeder): 3-6
—Professors seek studies on therapeutic prayer (Zimmerman, Witmer): 6-10
—Medicine by dogma (Cameron): 6-12
—Soundings article wins praise (Blancke): 7-6
—Observations of the liability crisis (Samadani): 7-6
—The medical examiner and euthanasia (Jentzen): 8-9
—An offer to help (Weeth): 8-10
—Adoption revisited (Buck): 8-12
—What medicine is like (Kloster): 8-12
—Breast cancer detection error (Larson): 12-8
Liability crisis, Observations of the (Letters) (Samadani): 7-6
Limits on medical malpractice in Wisconsin: 4-32
Living will form: 7-135
Loss prevention: 1-23, 2-25, 3-32, 5-36, 9-35, 12-33
—Risk management an ounce of prevention (Roberts): 1-12
—Preparing for the battle: 2-25
—Coping with the stress of being sued (Reineck): 3-32
—Case report brachial plexus injury with shoulder dystocia (Sandmire): 5-36
—The case of nurse Rival and Dr Cutter (Roberts, Wencel): 9-35
—The expert witness (Kidder): 12-33

Malpractice limits across the nation, Medical: 4-36
Mandatory assignment bill, SMS fights: 5-48
Mediation and peer review services: 7-91
Mammography guidelines and practices in Wisconsin (Remington, Lantz): 9-38
Medicaid reimbursement rates, SMS seeks fairer: 1-35
—Medicaid patients' use of HMO services (Laufenburg): 2-19
—Medicaid seminars, SMS sponsors EDS: 3-34
Medical liability insurance in Wisconsin: 7-110
Medical Mediation Panels, Update on the (Sproule): 1-25
—Evaluating the Medical Mediation Panels (Voice of the SMS): 1-8
—Wisconsin's medical mediation panels: 7-113
Medical records: 7-116
—Medical record retention: 7-116
—Recommendations: 7-116
—Statutory provisions: 7-117
—Medical record inspection: 7-119
—Charging for medical records: 7-120
Medical report, Standard casualty: 7-118
Medicare questions and answers: 1-28, 2-30
—Medicare to sponsor a new Medicare seminar, SMS and WPS: 2-30
—Medicare and the so-called excess charges: 5-31
Minor's consent: 7-110

Narcotics registration: 7-142
Nursing home law creates confusion, New: 4-44
Nursing shortage: 4-50

Optometrist referral law: 7-110
Organ donation law: 7-110

Parking privileges for the disabled: 7-129
—Application for special identification card: 7-130
Peer review at Milwaukee conference, Adams explains: 6-41
—Peer review review (Wencel): 9-27
Physician assistants, The changing role of (Lehman): 3-30
—Physician's assistants (PA): 7-110
Physician licensure and verification: 7-115
Physician shortage, Wisconsin's family (Beasley): 1-11
Physician support group: 7-90
—Sample letter: 7-90
Public health: 4-25, 5-32, 6-34, 9-38, 10-38, 11-40, 12-35
—Chronic disease mortality and risk factors in Wisconsin, 1986 (Remington, Moss): 4-25
—Progress in the early detection of breast cancer in Wisconsin (Remington): 5-32
—Trends in lung cancer mortality in Wisconsin (Remington, Fiore): 6-34
—Mammography guidelines and practices in Wisconsin (Remington,Lantz): 9-38
—Routine checkups among Wisconsin adults: 1987-1989 (Remington, Lantz): 10-38
—Publicity, policy and trends in cigarette smoking: isconsin 1950-1988 (Peterson, Remington): 11-40
Project SENSOR: Occupational disease and injury surveillance (Anderson, Higgins, Hanrahan): 12-35
Publications and reprints available: 7-98

Return to work recommendations: 7-139
—Return to work form: 7-140
Risk management an ounce of prevention (Roberts): 1-23

Secretary's report: 3-4, 6-4, 10-4, 11-5, 12-3
—It's your profession Get involved (Adams): 3-4
—HMOs,MDs, and the term"hold harmless" (Adams): 6-4
—The time to act is now (Adams): 10-4
—An overview of the issues (Adams): 11-5
—We cannot afford to postpone hard choices (Adams): 12-3
Smoking and birth defects: 4-16
Soundings: 1-10, 3-7, 6-12, 7-14, 11-14
—Spells (Hunt): 1-10
—Blind Girl (Hunt): 1-10
—Bits and pieces (Diekema): 3-7
—Reflections on being sued (Richards): 6-12
—Patient admiration (Richards): 6-12
—Professional distance (Richards): 6-12
—Doc-in-a-box (Schiedermayer): 8-14
—My first 50 years at Columbia Hospital (Pohle): 11-14
State Bar study misleading, SMS calls: 3-35
Sued, Coping with the stress of being (Loss prevention) Reineck): 3-32

Tax Reform Act of 1986 Section 89, The (Wencel): 6-29
Tobacco campaign, Physician help requested in anti-: 1-30
Uncompensated care among Wisconsin physicians (Carranza, Handley, Ralph, Wildner, Yeazel): 4-23
Uninsured, Task force unveils plan for the: 3-35
—Legislation created to help Wisconsin's uninsured: 6-38
Unprofessional conduct: 7-114
Urban, MD, elected to State Assembly, Frank: 10-43
—Urban, MD, speaks out, A doctor in the House: Rep: 11-33

WIPRO review process: 7-91
Wisconsin's government agencies: 7-144
—Constitutional officers: 7-144
—Department of Health and Social Services: 7-144
—Division of Health: 7-144
—Controlled Substances Board: 7-145
—Division of Community Services: 7-145
—Division of Vocational Rehabilitation: 7-146
—Division of Care and Treatment Facilities: 7-147
—Department of Regulation and Licensing: 7-147
—Center for Health Statistics: 7-147
—Bureau of Health Professions: 7-148
—Department of Industry, Labor and Human Relations: 7-148
—Office of the Commissioner of Insurance: 7-148
—Office of State Courts: 7-148
—Medical Medication Panels: 7-148
Worker's compensation, An overview of: 7-134
—Contesting worker's compensation charges: 7-138

State Medical Society—Organizational

Adams, Thomas L., Secretary's report: 3-4, 6-4, 10-4, 11-5
—It's your profession: Get involved: 3-4
—HMOs, MDS, and the term 'hold harmless': 6-4
—The time to act is now: 10-4
—An overview of the issues: 11-5
AMA Physician's Recognition Awards: 2-37, 4-47, 4-52, 9-54, 11-44
—Collective bargaining, AMA study finds physicians favor: 10-53
Annual meeting April 13-15,1989: 2-33
—Nominees for SMS offices 1989: 2-33
—District caucuses: 2-36
—Annual meeting events 1989: 3-36
—Actions of the SMS H/D: 7-11
—Reference Committee on Socioeconomic Activities: 7-14
—House of Delegates 1989: 7-16
—House of Delegates 1989: 7-16
—Presidential report (Kabler): 7-18
—Report of the president-elect (Treacy): 7-19
—Carrying medicine's banner into the tort wars, Secretary's annual report: 7-22
—SMS offices open for nominations: 9-47
Assistant secretary, SMS hires new: 7-97
Awards
—Civic Leadership: Blake E. Waterhouse, MD: 7-24
—Directors: Bernie Maroney: 7-25
—Distinguished Service: Charles L. Junkerman, MD: 7-26
—Physician-Citizen of the Year: Jerome W. Fons, Jr, MD: 7-26
—Presidential Citation: June Dahl, PhD: 7-27
—Meritorious Service:7-28
—Special Recognition: 7-28
—Fifty Year Club: 7-28
—Student Writing Contest, Wisconsin Medical Journal: 7-29
—Beaumont 500 Club: 7-100
—Beaumont Lecture: 7-103
—Houghton: Mark A. Weiner/Lucy A. Runde: 7-103
—Elvehjem: Bruce W. Fry: 7-105

Blue Book update: 8-34, 10-36, 11-49
Board of Directors committees 1989-1990: 7-43
—Board of Directors and districts 1989-1990: 7-68

Charitable, Educational and Scientific Foundation Board **Contributions**: 1-40, 4-41, 7-118, 9-44, 9-50, 10-50, 10-54, 11-50
—Foundation news: 7-99
—A guide to giving: 7-101
—Foundation facts: 7-102
—History of the CES Foundation: 7-105
Charter law: 7-55
Commissions and committees 1989-1990: 7-56
Constitution and Bylaws: 7-45
Continuing medication education, Accreditation of: 7-96
County medical societies, Officers of Wisconsin's: 7-77
County society news: 1-38, 2-44, 3-40, 4-47, 10-43, 11-44, 12-42
—Brown: 2-44, 3-44, 4-47, 10-43, 11-44
—Chippewa: 3-40
—Door-Kewaunee: 4-47
—Fond du Lac: 1-38, 2-44, 3-40, 4-47, 10-43, 12-42
—Kenosha: 1-38
—Lincoln: 3-40
—Manitowoc: 4-47
—Marathon: 4-48
—Marinette-Florence: 4-48
—Milwaukee: 4-48
—Oneida-Vilas: 4-48
—Outagamie: 1-38, 3-40, 4-48
—Racine: 4-48
—Rusk: 1-38, 3-40, 4-48, 10-43
—Sauk: 3-40
—Washington: 3-40
—Waupaca: 3-40
—Winnebago: 3-40, 4-48, 10-44, 11-44, 12-42
—Wood: 12-42

Dues-exempt members, Board creates subscription fees for: 1-38

Editorials: 1-4, 2-6, 2-8, 2-10, 4-7, 4-8, 5-6, 6-6, 7-5, 8-4, 10-6, 11-8, 12-4
—The ethics of progress (Boulanger): 1-4
—What's our excuse? (Lamont): 1-6
—A solemn promise (Sautter): 2-6
—The profession remains united (Mullooly): 2-6
—A right to health care (Lewis): 2-8
—President Bush and priorities (Mullooly): 4-7
—A job well done (Lamont): 4-8
—Something stronger than No-Doz (Lamont): 5-6
—Tithing (Mullooly): 5-6
—Once more, with apathy (Boulanger): 6-6
—A tribute to Wayne J. Boulanger, MD (Falk): 6-8
—Surrogate motherhood (Mullooly): 6-8
—The importance of parenting . . . (Lamont): 6-10
—. . . and the medical family (Adams): 6-11
—Lyme hysteria (Sautter): 7-5
—Physicians and nurses: a common purpose (Sautter): 8-4
—Health care costs and social commitment (Mullooly): 8-6
—The 80-hour work week and rural health care (Sautter): 10-6
—Toward a better practice of medicine (Gold): 10-8
—Euthanasia and the British Medical Association (Mullooly): 11-8
—The relation of the holocaust to bioethics (Edwards): 11-12
—Something especially good is happening (Lamont):11-14
—Solid family values make sense (Lamont): 12-4
Expense reimbursement policy: 7-65

FAX, SMS has: 1-37
Field representative hired; districts redraw, New SMS: 1-37
Financial report: 7-70

Legislator joins forces with SMS, Former state: 4-45

Mediation and peer review services: 7-91
Medical Writing Contest: 9-51, 10-12, 11-16
Membership Directory: 8-29
—How the directory was compiled: 8-30
—Correction form: 8-30
—AMA self-designated practice specialties(primary and secondary) with codes: 8-31
—Approved specialty boards and certificate categories (effective March 1986) with codes: 8-32
Membership facts: 7-72, 8-26

Membership update: 2-39, 3-44, 4-54, 6-45, 9-49, 10-52, 11-48

News highlights: 4-49, 10-44

Obituaries: 1-38, 2-38, 3-42, 4-49, 5-50, 6-44, 9-52, 10-54, 11-48, 12-40
—Albright, Edwin C., Madison: 12-40
—Arnold, William George, Green Bay: 6-44
—Bernhard, Louis A., Milwaukee: 6-44
—Brillman, Charles L.Milwaukee: 1-38
—Brindley, Benjamin I., Madison: 4-50
—Brousseau, Edward Robert, Eau Claire: 4-49
—Buchsbaum, Herbert J., Milwaukee: 12-40
—Buffington, David Bruce, Cudahy: 9-53
—Burke, Myra Emery, Madison: 6-44
—Chatterjee, Amarendra N., Kaukauna: 5-50
—Chelecki, Steven, Madison: 4-50
—Connolly, John E., Kenosha: 2-38
—Cook, R. Sanford, DeLand, Fla: 1-38
—Dale, Henry Leo, Birmingham, Ala: 4-50
—De Groot, Henry E., Racine: 9-52
—Dickie, Helen A., Madison: 3-42
—Donlin, William F., Belleville: 1-38
—Dricken, Hilbert N., Milwaukee: 5-50
—Erchul, James W., Menasha: 12-40
—Ernst, Floyd, W., La Crosse: 4-49
—Fox, Meyer S., Milwaukee: 2-38
—Frederickson, Robert F., Tiburon, Calif: 12-41
—French, George A., Appleton: 2-38
—Garens, Ralph W., Milwaukee: 9-53
—Geppert, Charles H., Madison: 9-53
—Gerosa, Gonzalo, Two Rivers: 10-54
—Gillespie, Calvin J., Muskego: 5-50
—Goodman, Jay S., Milwaukee: 9-52
—Groessl, Peter J., Green Bay: 9-53
—Hidde, Frederick G., Sheboygan: 2-38
—Jefferson, Roland A., Santa Barbara, Calif: 3-44
—Kagen, Louis, Milwaukee: 12-40
—Kats, Esther, La Crosse: 4-50
—Klees, Vanna Morosi, Fox Point: 5-51
—Kramer, James D., Lake Tomahawk: 11-48
—Krill, Richard J., Whitefish Bay: 2-38
—Lange, Eugene W., Lehigh Acres, Fla: 6-44
—Lee, Howard J., Milwaukee: 9-52
—Leinfelder, Placidus: 2-38
—Lindner, Anton, Innsbruck, Austria: 4-49
—Matson, Kenneth L., Sun City, Ariz: 10-55
—McGreane, Norbert A., Darlington: 1-38
—McHale, Josiah A., Racine: 11-48
—Miller, Herbert C., Racine: 10-55
—Milson, Louis, Green Bay: 5-51
—Nordholm, Vincent W., Stoughton: 9-52
—O'Connor, Robert D., Whitefish Bay: 3-42
—Olson, Clifford A., River Falls: 2-38
—Pallasch, Frank J., Fox Point: 9-52
—Pennington, Jr, Francis J., Sturgeon Bay: 9-52
—Pfarr, Paul A., Waupaca: 5-50
—Prehn, Fred C., Wausau: 1-38
—Puestow, Karver L., Madison: 12-40
—Ridley, John F., Nashotah: 11-48
—Schaefer, Joseph C., Shreveport, La: 10-54
—Scheible, Frank J., Racine: 3-42
—Schenkenberg, Grace E., Franksville: 5-51
—Schmitz, Robert C., Madison: 11-49
—Schroeder, Harold T., Racine: 11-49
—Sheehan, William C., Stevens Point: 12-41
—Sievers, David J., Berlin: 9-53
—Stern, Ruth S., Milwaukee: 9-52
—Steube, Ronald W., Naples, Fla: 10-55
—Slutzky, Nathan, Bayside: 9-52
—Sullivan, Donel R., Green Bay: 5-50
—Thompson, Lester A., Rice Lake: 3-42
—Thompsett Jr, Arthur C., Key Largo, Fla: 4-49
—Thune, Ronald G., Green Bay: 9-53
—Troup, Wilson James, Boyton Beach, Fla: 5-51
—Wahl, George E., Eau Claire: 5-50
—Weil, Harry R., Lauderhill, Fla: 4-49
—Williams, Jr, Hugh H., Sparta: 9-52
—Wilz, Donald R., Racine: 6-44
Officers and directors 1989-1990: 7-33
Opinion policy: 4-8, 11-6

Paxton, James E., new SMS assistant secretary: 7-97
Physician briefs: 4-45, 6-42, 9-47, 10-46, 11-43
Physicians Insurance Company of Wisconsin state of the corporation, 1989: 7-107
Physician placement services: 7-95
Policies, Summary of SMS: 7-66
President's page: 1-3, 2-3, 3-3, 4-3, 5-3, 6-3, 9-4, 10-3
—Casualties of the war on drugs (Kabler): 2-3
—The Year of the Doctor (Kabler): 1-3
—Preference, process and policy (Kabler): 3-3
—The reform movement (Kabler): 4-3
—Medical manpower (Treacy): 5-3
—Is this what our forefathers had in mind? (Treacy): 6-3
—Our challenge is great (Treacy): 9-4
—Fighting mandatory assignment: "Just the facts, Ma'am" (Treacy): 10-3
Publications and reprints available: 7-98

Resident writing contest winner:
—Ethylene glycol poisoning (Momont, Dahlberg): 9-16
Resource directory, SMS: 7-86, 8-16

Specialty sections, Officers of the SMS: 7-74
Specialty societies, Officers of Wisconsin's: 7-82
Specialty society news: 1-39, 2-37, 12-42
—American Society for Therapeutic Radiology and Oncology: 1-39
—American Academy of Ophthalmology: 1-39
—Wisconsin Society of Physical Medicine and Rehabilitation: 2-37
—Wisconsin Radiological Society: 2-37
—Wisconsin Society of Internal Medicine: 12-42
Student writing contest winner:
—Treating Tourette syndrome with haloperidol: Predictors of success (Schwabe, Konkol): 10-23

Urban, MD, elected to State Assembly, Frank: 10-43
—A doctor in the House: Rep Urban, MD, speaks out: 11-33

Voice of the SMS: 1-8, 2-4
—Evaluating the Medical Mediation Panels: 1-8
—The butterfat incident: 2-4

Wisconsin Medical Journal
—Index to advertisers: 1-45, 2-48, 3-50, 4-60, 5-53, 6-59, 7-168, 8-284, 9-58, 10-60, 11-56, 12-54
—Instructions for authors: 2-23, 4-21, 5-28, 8-16, 9-22, 10-32, 11-51
—Three retire from WMJ service: 3-36
—WMJ Reader survey results: 5-45
—Student Writing Contest: 7-29, 10-23
—Opinion policy: 8-4, 11-6
—Graduate Nursing Student Writing Contest: 9-21, 10-34, 11-46
—Medical Writing Contest: 9-51, 10-12, 11-16
—WMJ announces physician photo contest: 11-4
WISPAC and Physicians for Better Government: 7-85

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Physicians Exchange

continued

General board-eligible internist desires smaller city practice with one or more MDs. City now in practice is Milwaukee. City size preferred 30,000 to 100,000 plus/minus. Would need to give present employer 45 day notice. Call 1-414-258-1783 after 6:00 pm.
p10–12/89

Family practice, internal medicine, and general surgery practice opportunities. Rural Lake country community is seeking the above practitioners to join a busy 12-physician multi-specialty group. Quality, comfortable living environment, multiple recreational activities, fine educational opportunities and cultural activities abound. Salary and fringe benefits very liberal. Send curriculum vitae or inquires to: Lake Region Clinic, PC, Attn: Joel Rotvold, PO Box 1100, Devils Lake, ND 58301, or call collect at 701-662-2157 for further information.
10–12/89

BC/BE Internist. Group of three internists would like to add fourth to busy practice in rural friendly northeastern Wisconsin community. New clinic attached to modern community hospital. Send CV to: Artwich Clinic, 815 S Main St, Oconto Falls, WI 54154.
p10–12/89

Orthopedic surgeon. A progressive 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's upper peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr Roberts will guarantee $200,000 plus malpractice insurance, office space, CME, vacation and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; ph 906-779-4500.
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p11–12/89;1/90

Baraboo, Wisconsin. Emergency Department at St. Clare Hospital seeks full-time staff physician. Approximately 10,000 annual visits. Compensation to be negotiated. Pleasant area in which to live, near Devil's Lake and the Baraboo Hills. Also, Madison nearby. Contact: Thomas Warwick, Executive Vice President, St Clare Hospital, 707 14th St, Baraboo, WI 53913; 608-356-5561, ext 492. 11tfn/89

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Family practice. Seeking physician for established satellite clinic in rural northeastern Wisconsin. Excellent salary and benefits. Modern clinic with light call schedule. Contact: Artwich Clinic, 815 South Main St, Oconto Falls, WI 54154. p10–12/89

Practice for sale. Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, WI 53122. 8tfn/89

Family practice. Southwest Iowa community of 7800 (servicing 27,000) seeking a family physician to join well-established six-doctor practice. Modern facility adjacent to 100-bed hospital. Income guaranteed first year and full partnership after first year. For additional information write to Atlantic Medical Center, Sue Marsh, Office Manager, PO Box 429, Atlantic, Iowa 50022 or phone 712-243-2850. 11–12/89;1/90

Dermatology. The Racine Medical Clinic, a 37-physician multi-specialty group conveniently located between Chicago and Milwaukee. Well equipped clinic offering salary guarantee with incentive bonus; excellent fringe benefits and early ownership. Please send curriculum vitae to: R. D. Lacock, Administrator, Racine Medical Clinic, 5625 Washington Ave, Racine, WI 53406.
11tfn/89

Northern Wisconsin
Pediatric physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

Beloit Clinic, SC, an expanding 44-physician, multi-specialty group in southern Wisconsin college town, is seeking internists (with or without subspecialty), an ophthalmologist, a family practitioner and a plastic surgeon. Guaranteed salary with incentive, plus excellent fringe benefits. Send CV to James R. Ruethling, Administrator, Beloit Clinic, SC, 1905 Huebbe Parkway, Beloit, WI 53511; ph 608-364-2200. 12/89;1–5/90

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Central Wisconsin-BC/BE general internist to join expanding 27-physician multi-specialty group with five internists, two nephrologists and one gastroenterologist. Very desirable university city with many outdoor recreational and cultural amenities. Attractive income and ownership arrangements. Other areas of expansion may provide opportunity for spouse if also a physician. Send CV to: Administrator, Rice Clinic, SC, 2501 Main St, Stevens Point, WI 54481 or call collect 715-344-4120.
11tfn/89

Physicians Exchange

continued

Family practice. Four-physician group seeks fifth MD (BC/BE) to join growing practice located within one hour of Madison and Milwaukee. Full benefits, first-year salary guarantee. One hundred and two bed community hospital located within one block from office. Send CV to Betty J. Parish, Clinic Mgr, PO Box 49, Watertown, WI 53094; ph 414-261-5204. 9-12/89; 1/90

The Wausau Medical Center is seeking BC/BE individuals in the following specialties: Cardiology, Dermatology, Family Practice, Infectious Disease, Obstetrics/Gynecology, Pediatrics and Rheumatology. Modern clinic facility located across the street from modern 300-bed hospital. Full partnership in three years. Easy access to lakes, woods and mountains. Write including CV to D.K. Aughenbaugh, MD, Medical Director, Wausau Medical Center, 2727 Plaza Dr, Wausau, WI 54401. p4tfn/88

Beaumont Clinic, Ltd, (a 22-physician multi-specialty clinic) seeks a BC/BE internist to join a five-physician general internal medicine department. Beaumont Clinic, Ltd, offers a modern, well-equipped facility including in-house laboratory, x-ray, stress testing, EKG, PFT, and mammography. Other specialties represented include general surgery, OB/GYN, pediatrics, pulmonary, hematology, allergy, and family practice. Green Bay is a regional medical center offering state-of-the-art facilities, equipment, and sub-specialty referral staff. Salary guarantee with incentive. Excellent benefits. Send letter of introduction, curriculum vitae, and three references to Director of Recruitment, Beaumont Clinic, Ltd, 1821 S Webster Ave, Green Bay, WI 54301. 10-12/89

Manitowoc, Wisconsin. Multi-specialty group of 18 physicians seeking BC/BE internal medicine, OB/GYN, and oncology specialists. First year salary guarantee with ownership potential after first year. Excellent fringe benefit package. Please send current curriculum vitae to James A. Robinson, Administrator, Manitowoc Clinic, 601 Reed Ave, PO Box 1270, Manitowoc, WI 54221-1270. 10-12/89

Internist—BC/BE. Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs or subspecialists in internal medicine. Send CVs to Michael Sergi, MD, 14 North Main St, Fond du Lac, WI 54935. p8-12/89;1/90

Family practice. Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setup his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service area population of over 45,000. Contact: Dr Paul Hayes, Anderson Memorial Hospital, Main St, Norway, Michigan 49870; 906-563-9243 or office 906-563-9255. 11-12/89

Radiologist. A three-man radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive 126-bed, two hospital system located in Iron Mountain, Michigan's upper peninsula. We have a service area population of over 45,000. Contact and/or send resume: Doctors Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Ave, Iron Mountain, MI 49801; 906-779-4565. 11-12/89

Emergency room position just south of Milwaukee. Group covers two ER and walk-in. Competitive salary and full fringes. Contact: J. Linstroth, MD, 414-835-7761. 8tfn/89

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Family Practice physician to join multi-specialty group practice in Woodruff, Wis. Guaranteed annual income and excellent fringe benefit program. Send CV to R.J. Sloan, MD, Lakeland Medical Associates, Ltd, PO Box 549, Woodruff, WI 54568. 12tfn/88

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Medical Meetings—Continuing Medical Education

continued

February 6–8, 1990: Indianhead Symposium and Ski Outing, Lakewoods, Cable, Wisconsin. Wisconsin Academy of Family Physicians; ph 414/784-3656. 1/90

March 4–10, 1990: 19th Annual Pediatric Postgraduate Course, Pediatric Update 1990, Hotel Ritz, Lisbon, Portugal. Info: Ann J. Boehme, CMP, Schneider Children's Hospital of Long Island Jewish Medical Center, New Hyde Park, NY 11042; ph 718-470-8650. g12/89

March 19–21, 1990: NIH Consensus Development Conference: Surgery for Epilepsy. Masur Auditorium, Bethesda, Maryland. Info: Conference Registrar, Prospect Associates, 1801 Rockville Pike, #500, Rockville, MD 20852; 301-468-6338. g12/89

June 24–27, 1990: 17th Annual Harvard Medical School Course on Intensive Care Medicine, "The Art and Science of Critical Care." Omni Parker House Hotel, Boston, Mass. Info: Bart Chernow, MD, Dept of Anaesthesia, Harvard Medical School/Massachusetts General Hospital, 32 Fruit St, Boston, MA 02114; ph 617-726-2858. g12/89;1-3/90

July 26–28, 1990: Wisconsin Society of Obstetrics & Gynecology Annual Meeting, Embassy Suites Hotel, Brookfield. g1-6/90

September 13–15, 1990: Wisconsin Society of Internal Medicine, Concourse Hotel, Madison. g1-8/90

AMA

December 3–6, 1989: Interim House of Delegates, Honolulu.
June 24–28, 1990: Annual AMA House of Delegates, Chicago.
December 2–5, 1990: Interim House of Delegates, Orlando.
June 23–27, 1991: Annual AMA House of Delegates, Chicago.
December 8–11, 1991: Interim House of Delegates, Las Vegas.
June 21–25, 1992: Annual AMA House of Delegates, Chicago.
December 6–9, 1992: Interim House of Delegates, Nashville.

THIS LISTING is compiled by the State Medical Society of Wisconsin in cooperation with others who wish to maintain a centralized schedule of meetings and courses of interest to Wisconsin physicians and to avoid scheduling programs in conflict with others. Hospitals, clinics, specialty societies, and medical schools are particularly invited to utilize this listing service. There is a nominal charge for listing of Continuing Medical Education courses at the following rates: 50¢ per word, with a minimum charge of $20.00 per listing. *All listings must be prepaid.*

BOXED LISTINGS: $25.00 per column inch. Listings of other scientific meetings will be included at the discretion of the editors.

COPY DEADLINE for listings is 1st of the month preceding the month of publication; *eg,* copy for the August issue is due by July 1. Address communications to: Wisconsin Medical Journal, Box 1109, Madison, WI 53701; or phone 608-257-6781; or toll-free in Wisconsin: 1-800-362-9080.

OTHER MEETINGS in the United States are published in the first issue of each month of the *Journal of the American Medical Association.*

State Medical Society of Wisconsin

Dates and locations of
ANNUAL MEETINGS
1989–1993

All meetings will be held in Milwaukee at the Milwaukee Exposition and Convention Center and Arena (MECCA) and the new Hyatt Regency as the headquarters hotel, unless otherwise indicated.

1990—April 26–28: Green Bay Convention Center, Embassy Suites
1991—April 18–20: Milwaukee Wyndham Hotel
1992—April 23–25
1993—April 15–17: La Crosse Convention Center, Radisson
1994—April 14–16: Milwaukee

Meetings days will be Thursday and Friday; the first session of the House of Delegates will convene on Thursday, the second and third on Friday. Scientific programming will be on Friday and Saturday.
Further information: Commission on Continuing Medical Education, State Medical Society of Wisconsin, Box 1109, Madison, WI 53701. Local Telephone: 257-6781; toll-free in Wisconsin: 1-800-362-9080.

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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest, pulmonary embolism and infarction; rhythm disturbances; atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Vasculitis, muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure,* WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486

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